Section

4

Key Issues for Concept Plan & Project Application

This section of the report generally addresses matters set out in the Part B; project application section of the Director-General's Assessment Requirements.

4.1 Strategic Planning

DGR 1.1 Justify the proposed land uses across the site having regard for the Byron Local Environment Plan 1988. Provide justification for any inconsistencies.

The existing uses across the site comprise roads and agriculture. The proposed uses across the application area comprise 'roads' and 'place of assembly' and certain innominate uses, with its ancillary uses of camping, temporary structures, service and associated works are only ever carried out with an event.

The Byron Local Environmental Plan, 1988, defines a 'place of assembly' as follows:

place of assembly means a public hall, theatre, cinema, music hall, concert hall, dance hall, open-air theatre, music bowl or any other building of a like character used as such and whether used for the purposes of gain or not, but does not include a place of worship, an institution or an educational establishment.

The 'place of assembly' use is proposed over lands within the following zones of the Byron Local Environmental Plan 1988:

- Zone 1(a) (General Rural Zone)
- Zone 1 (b1) (Agricultural Protection Zone)
- Zone 9(a) (Proposed Road Zone) – LEP Clause 44

The 'place of assembly' use is a permissible use within these zones, subject to consent.

The 'roads' use corresponds with the "Spine Road" works described herein. This use is proposed over lands within the following zones of the Byron Local Environmental Plan 1988:

- Zone 1(a) (General Rural Zone)
- Zone 1 (b1) (Agricultural Protection Zone)
- Zone 7(k) (Habitat Zone)
- Zone 9(a) (Proposed Road Zone) – LEP Clause 44

The 'roads' use is a permissible use within these zones, subject to consent.

Table 4.1 following provides an assessment of the consistency of the proposed Land uses with applicable zone objectives:

Table 4.1 Consistency with Byron LEP

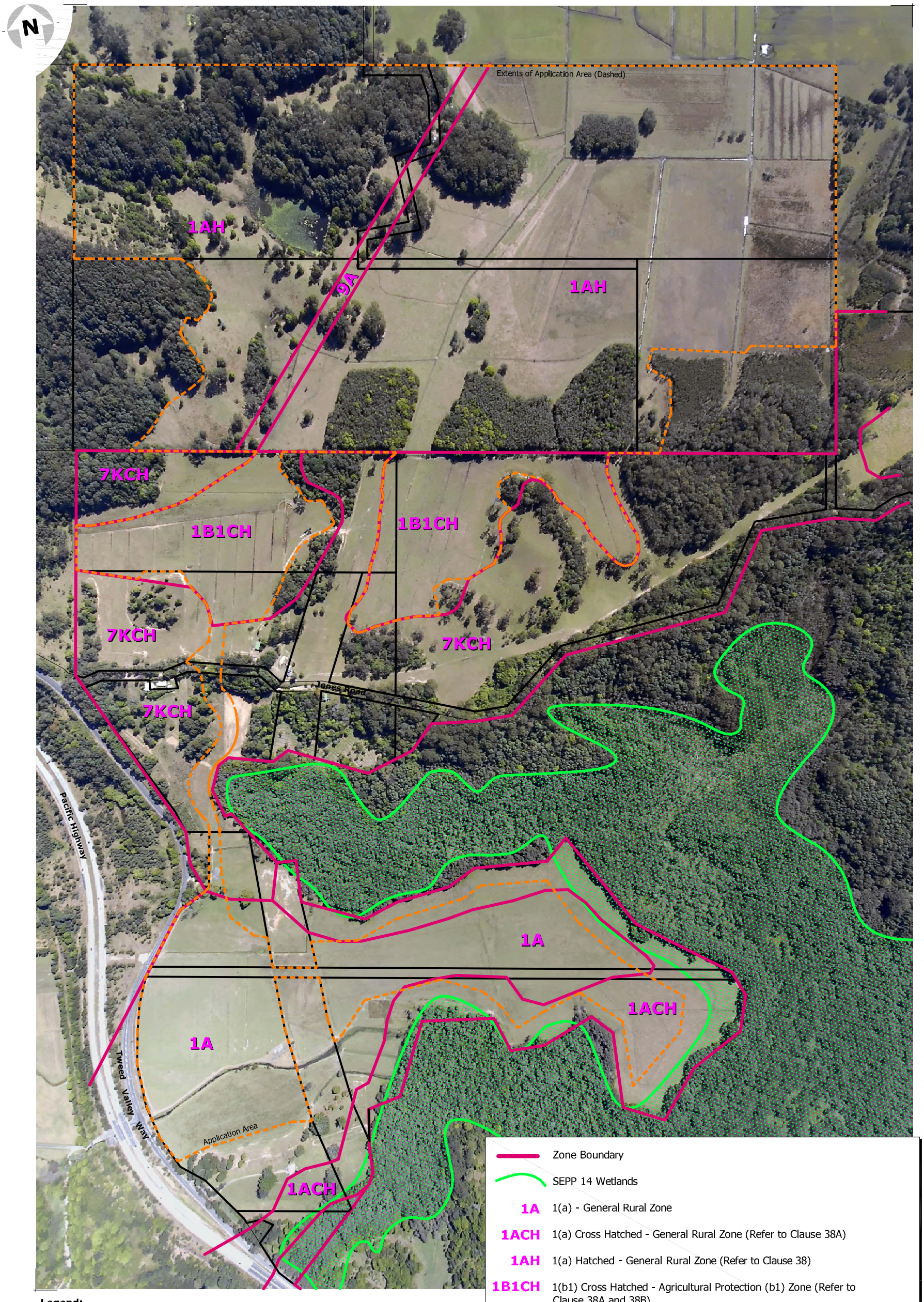
LEP Requirement	Summary of Requirement	Proposed	Complies
Meets the objectives of the 1(a) General Rural Zone	(a) To encourage and permit a range of uses creating a pattern of settlement, at a scale and character that maintains or enhances the natural, economic, cultural, social and scenic amenity of the rural environment of the Shire of Byron;	The uses proposed within the 1(a) General Rural Zone comprise the Place of Assembly and spine road. The pattern of settlement resulting from this range of uses, on balance, is at a scale and character so as to enhances the natural, economic, cultural, social and scenic amenity of the rural environment of the Shire of Byron	Yes
	(b) To encourage and permit a pattern of settlement which does not adversely affect the quality of life of residents and visitors and maintains the rural character;	The proposed uses within the 1(a) zone, on balance, do not adversely affect the quality of life of residents and visitors and maintain the rural character. This view is based on the limited and periodic nature of the larger events on the site and balancing the positive impacts on a wide range of residents and visitors with the periodic adverse impacts on some residents.	Yes
	(c) To ensure development only occurs on land which is suitable for and economically capable of that development and so as not to create conflicting uses;	The detailed studies within the EA demonstrate the land is suitable and economically capable for the proposed uses. The larger event usage is not considered conflicting with agricultural or rural living uses as the events are periodic and will comply with applicable usage parameters.	Yes
	(d) To allow the use of land within the zone for agricultural purposes and for a range of other appropriate purposes whilst avoiding conflict between other uses and intensive agriculture;	The site will predominantly be used for agriculture throughout the year, with events to occur periodically over parts of the site.	Yes
	(e) To identify lands (shown hatched on the map) which in the opinion of the council possess a limited capability for more intensive uses or development;	Allotments making up the northern area of the application area are located within the 1(a) General Rural zone shown hatched on the map. This matter is addressed under Clause 38 of Byron LEP 1988 (see below).	Refer to comments on Clause 38 of Byron LEP 1988 below.
	(f) To restrict the establishment of	The proposed larger event usage requires good access to	Yes

LEP Requirement	Summary of Requirement	Proposed	Complies
	inappropriate traffic generating uses along main road frontages other than in road side service areas;	main roads and the highway. The proposal is to be considered under the provisions of the Infrastructure SEPP and, if approved, will be restricted via strict conditions in relation to traffic management.	
	(g) To ensure sound management of land which has an extractive or mining industry potential and to ensure that development does not adversely affect the potential of any existing or future extractive industry;	The proposal will not adversely affect the potential of any existing or future extractive industry.	Yes
	(h) To enable the provision of rural tourist accommodation and facilities only where such facilities are compatible with the form and density of the nature of the locality; and	No rural tourist accommodation and facilities are proposed.	Yes
	(i) To permit the development of limited light industries which do not pose any adverse environmental impact, (e.g. Software manufacture and film processing); and	No light industries are proposed.	Yes
	(j) To ensure that the development and use of land shown cross-hatched on the map adjacent to areas of significant vegetation and wildlife habitat do not result in any degradation of that significant vegetation and wildlife habitat, and that any development conserves and protects and enhances the value of the fauna and flora.	Areas of Lot 30 DP 880376 and Lot 102 DP 1001878 contain 1(a) cross-hatched lands primarily located adjacent to the Billinudgel Nature Reserve. A 30 metre buffer is provided to the Billinudgel NR. Public entry will be prevented into the reserve. Use of this part of the site will be limited to a maximum of 12 days per year.	Yes
Meets the objectives of the 1(b1) Agricultural Protection Zone	(a) To protect and enhance the long term potential of the Shire of Byron through the preservation of the higher quality	The uses proposed within the 1(b1) Agricultural Protection Zone comprise the Place of Assembly and spine road. The majority of the site will be used	Yes

LEP Requirement	Summary of Requirement	Proposed	Complies
	agricultural land within the zone and to restrict all forms of development within the zone which, in the opinion of the council, might prejudice such potential;	for agriculture for the majority of each year, thus protecting the long term potential for agriculture.	
	(b) To prevent fragmentation of rural holdings and to encourage consolidation of lot sizes for the purposes of agricultural and horticultural production;	No fragmentation by subdivision is proposed.	Yes
	(c) To enable agricultural support facilities to be carried out on land within the zone in a manner which does not significantly reduce the agricultural and horticultural production potential of land in the locality;	The road within the 1(b1) zone will be used to support agriculture within the site for the majority of each year.	Yes
	(d) To permit subdivision only where it is considered by the council, on the advice of the Department of Agriculture, to be necessary to maintain or increase agricultural production or to allow the conduct of any use permitted in this zone other than residential buildings, or where proven demand for legitimate agricultural or horticultural holdings of a smaller size is established;	No subdivision is proposed.	Yes
	(e) To restrict the establishment of inappropriate traffic generating uses along main road frontages; and	The 1(b1) zone land within the site does not have main road frontage. The proposal is to be considered under the provisions of the Infrastructure SEPP and, if approved, will be restricted via strict conditions in relation to traffic management.	Yes
	(f) To establish appropriate buffer zones between	The site design incorporates appropriate buffers for the	Yes

LEP Requirement	Summary of Requirement	Proposed	Complies
	high quality agricultural land and other uses, particularly near the perimeter of such lands;	agricultural land and other uses.	
Meets the objectives of the 7(k) Habitat Zone	(a) To identify and protect significant vegetation and wildlife habitats for conservation purposes;	Only the roadway comprising the Spine Road and its footpath is located within the Zone 7(k) zone area. The road is located to protect significant vegetation and wildlife habitats.	Yes
	(b) To prohibit development within the zone that is likely to have a detrimental effect on the wildlife habitats which exist;	The only development proposed within the zone is the Spine Road which is a permissible use.	Yes
	(c) To enable the carrying out of development which would not have a significant detrimental effect on the wildlife habitats; and	The proposed road has been assessed as not creating a significant detrimental effect on the wildlife habitats.	Yes
	(d) To enable the careful control of noxious plants and weeds by means not likely to be significantly detrimental to the native ecosystem.	Noxious plants and weeds management is proposed using recognised best practices as addressed within the Ecological Assessment.	Yes
Meets the objectives of the 9(a) Proposed Road Zone	(a) The objective of this zone is to set aside land (being land that the council or a Government instrumentality intends to acquire) for various proposed roads.	The RTA in correspondence to BSC dated 17 August 2006 clarifies that no RTA roads are proposed within the 9(a) Zoned land within the site.	Yes

The Statutory Assessment within **Technical Paper T** demonstrates the consistency of the proposal with special provisions of the Byron Local Environment Plan 1988. The proposal is consistent with all special provisions other than a justified inconsistency with Clause 27 relating to the setback of the Gatehouse to a main road and a justified inconsistency with Clause 40 relating to the height limit of buildings as some temporary tents and stages exceed the height limit of 9 metres.



Legend:

Property boundaries

Extents of project application area (Dashed)

North Byron Parklands

0 160m

1:8000 (@ A3)

Date 21.07.10

Author SDR

Reference 09_120

IMPORTANT NOTE |
Cadastral information is subject to survey. The alignment of the aerial photograph and vectorial overlays is approximate only.

Prepared by

design team ink

Plan | **4.1**

Zoning Plan

Sources | Aerial Photography: Bill Mills (2009) | **Cadastre:** Ardill Payne (2009) | **Zoning:** Byron LEP 1988 | **SEPP 14:** Balanced Systems

DGR 1.2 Justify the proposal with reference to relevant local, regional, and State planning strategies. Provide justification for any inconsistencies with these planning strategies

A wide range of local, regional and State planning strategies are relevant to the Parklands proposal. Section 3.8.1 summarises the consistency of the proposal with applicable strategies while the Statutory Assessment within **Technical Paper T** provides a detailed analysis of the consistency of the proposal with such strategies.

Strategies considered within the assessment included the following:

- NSW State Plan
- NSW Coastal Policy and NSW Coastal Design Guidelines
    - Far North Coast Regional Strategy
- Northern Rivers Catchment Action Plan, 2005
- Northern Rivers Regional Industry and Economic Plan
- The Regional Business Growth Plan – Northern Rivers Region
- Byron Cultural Plan
- Byron Sustainable Agricultural Strategy
- Byron Biodiversity Strategy
- Community Economic Development Policy.

The Parklands proposal is considered highly consistent with relevant strategies especially those relating to local economic and employment stimulus, environmental enhancement and protection and social and cultural matters. No inconsistencies with strategies have been identified.

The Statutory Assessment within **Technical Paper T** also assessed the consistency of the proposal with applicable State Environmental Planning Policies (SEPP's). The SEPP's considered included:

- SEPP Major Development
- SEPP Infrastructure
- SEPP Temporary Structures
- SEPP Rural Lands
- SEPP 44 Koala Habitat Protection
- SEPP 55 Remediation of Land
- North Coast Regional Environmental Plan (now a deemed SEPP).

The Parklands proposal is considered highly consistent with relevant SEPP's. SEPP 21 - Caravan Parks was not a relevant SEPP as the camping associated with the event use of the site is ancillary to the event use. SEPP 14 is not considered a relevant SEPP as no part of the project application area touches upon land mapped under SEPP 14.

DGR 1.3 Outline the proposed staging of the development

The overall project is intended to be carried out in 3 stages.

Stage 1 - Low Scale Infrastructure Implementation & Environmental Repair Works Commenced:
The key components of Stage 1 comprise:

- Spine Road – The Spine Road, connecting the northern farm with the southern farm (length 2.32 km and area 2.3 ha).
- Upgrading of the western 340 metres of Jones Road to a two lane sealed road with a service entrance (Gate S), together with the Spine Road underpass or intersection.
- Event usage area (97.19 ha) – This area is where all events and associated event components would be accommodated.
- Southern Car Parking Area (25.04 ha) – This dedicated car parking area located in the south of the site is to be used for patron car parking for larger events. This area also contains the main entrance to the site (Gate A) as well as having two other entrances to be used for larger events (Gates B & C).
- Administration building – This building, with a floor area of 175 m², located adjacent the future Cultural Centre will provide office administration space for event workers.
- Gatehouse building - This building, with a floor area of 100m², located at the north-west corner of the southern car park will

provide administration space for workers managing the car parking area.
- Initial implementation of environmental repair works weed removal and planting and protection of designated pasture areas to restore forest vegetation and connectivity of habitats on the site

With respect to event usage, it is only intended to construct the required amount of infrastructure such as event laneways to cater for the first few years of usage with the remainder of the event laneways being built over time.

Stage 2 - Advanced Infrastructure Installation and Environmental Repair/Habitat Protection Plan Works Implemented:
In Stage 2, which is proposed to commence in Year 4, it is intended to institute the on-site water supply and wastewater scheme proposals as detailed within **Technical Paper F**.

Further implementation of the environmental works program will be undertaken throughout Stage 2.

Stage 3 - Finalisation of all Site Infrastructure/Environmental Repair and development of dedicated Conference Facilities:
Stage 3, which is intended to occur in Year 6, sees the finalisation of site infrastructure with the intended construction of the cultural centre and the conference facility.
Stage 3 is within the Concept Application and therefore requires further later approvals. The key components are:

- Cultural Centre – This facility of about 110m² provides for interpretation and exhibition of matters of Aboriginal and local culture as well as an administrative point for local Aboriginal community operations.
- Conference Centre – This facility is envisaged to provide conferencing for '180' and accommodation in either room, tent or cabin form for '60'.

Again, further implementation of the environmental works program will be undertaken throughout Stage 3.

DGR 1.4 Outline the proposed location and approximate size and scale of the facilities proposed for future stages (including the cultural centre, conference centre, camping infrastructure, water treatment plant and wastewater treatment facility)

Plan ES1 – Event Area and Land use Structure depicts the location and relative size of the event area and the proposed facilities for future stages with plans and descriptions provided within the overall application.

The following outlines the approximate scale and size of the various facilities for future stages:

- Cultural Centre - refer **Plan 3.21** – building of 110 m^2
- Conference Centre - refer **Plan 3.25** – building of 500 m^2 accommodating 180 people.
- Conference Centre accommodation - refer **Plan 3.25** – various building forms accommodating 60 people.
- Water supply – The proposed water treatment plant is described in detail in **Technical Paper F1**. It would draw raw water from the existing and proposed farm dams and treat it to a potable standard, as defined by the Australian Drinking Water Guidelines (ADWG's). The proposed water treatment capacity of the plant is 1ML per day. The new farm dam storage is 7.5ML.
- Wastewater treatment facility – The proposed wastewater treatment facility is described in detail in **Technical Paper F1**. The facility includes a sewage treatment plant, effluent holding dams, effluent polishing wetlands and dedicated effluent irrigation areas. The facility would have a daily treatment capacity of 700kL.

DGR 1.5 Outline in detail the scale and frequency of events (e.g. the total number of major, moderate and minor events per year)

Events for the Parklands site are defined in the following categories:

- Minor Event – less than 300 patrons
- Small Event – 300 patrons to 3000 patrons
- Moderate Event – 3000 patrons to 10,000 patrons
- Major Event – greater than 10,000 patrons.

Events with greater than 3,000 patrons are described within this EA in the context of their percentage of an overall patron capacity of 50,000 persons.

This application seeks a capped level of usage of the site for Small, Moderate and Major Events.

Approval is sought for a maximum event usage as follows:

- Major Events no more than 12 event days[14] per annum;
- Moderate Events – no more than 4 event days per annum;
- Small Events – no more than 4 event days per annum; and
- Minor Events – no daily limits are proposed.

It will take a number of years for the site usage to achieve the proposed capped level of event usage. The indicative usage calendar within **Table 3.2** indicates two events would occur in year 1 with a gradual increase to 6 events within year 5.

4.2 Urban Design & Sustainability

DGR 2.1 Demonstrate suitability of the proposal with the surrounding area in relation to bulk, scale, amenity (including noise) and visual amenity having regard to the Coastal Design Guidelines of NSW (2003) and the NSW Coastal Policy 1997.

The subject land is not within the Coastal Zone. In design terms the proposal largely seeks to be inconsistent with the Coastal Design Guidelines for NSW as the Guidelines are mainly designed around the establishment of urban settlements. The Parklands project is not this. The Parklands development seeks to maintain the rural and environmental character of the locality.

The Coastal Design Guidelines do support a place-based planning approach and this is the approach adopted at Parklands. Parklands supports the following key place-based planning objectives of the Guidelines:

1. To protect and enhance the cultural, ecological and visual characteristics of a locality;
2. To limit coastal sprawl by establishing separation and greenbelts between settlements;
3. To integrate new development with surrounding land uses;
4. To integrate land use with transport; and
5. To protect local character.

Parklands is consistent with the fundamental place-based design approach of the Guidelines but in a way which comprehensively maintains the rural and ecological amenity of the locality.

[14] Event days do not include the 'bump in' and 'bump out' period which occurs some days before and after each event.

4.3 Visual Impact

DGR 3.1 Address the visual impact of the proposal in the context of surrounding development and relevant mitigation measures. Use visual aids such as a scale model or photomontage to demonstrate visual impacts.

The Parklands Site contains low lying flats and undulating hills varying in elevation from less than RL 10m up to RL 90m in the north western corner. The Application Area occupies mostly flat land (albeit for some elevated land to the north-west) in the north and southern-most parts of the site. These two areas are connected by a narrow access corridor which straddles Jones Road. There are 2 residences and a number of farm utility buildings within the property.

Parklands itself consists of a variety of landcover types including densely forested areas, grass areas with scattered trees, low-lying grass lands, artificial drainage lines from past agricultural uses, undulating hills with various vegetation cover types and natural and created water bodies. These elements give it a rural and bushland character.

The property is bound to the west by Tweed Valley Way (the old Pacific Highway). Further to the west and at a higher elevation is the recently upgraded Pacific Highway. Large farm and rural residential uses occur further west, in and around the community of Yelgun.

The northern boundary of the property adjoins grassy lowlands which gradually rise to an elevation of approximately RL 40m AHD on Wooyung Road. Some large rural residential properties are located along this road. Some of these properties contain dwellings which overlook the northern parts of the site and proposed event space.

To the east of the property are dense vegetated lands containing Billinudgel Nature Reserve and a SEPP 14 Wetland. South Golden Beach is approximately 2.2km eastward of the site. The site can not be seen from South Golden Beach.

The southern portions of the site were the subject of land clearing by previous owners. The southern property boundary adjoins elevated vegetated lands. Access to the site is presently obtained from two locations; centrally from approximately 450m along Jones Road, and in the south off Tweed Valley Way adjoining the Yelgun Road Intersection.

The southern part of the project site and application area are located close to the newly upgraded Pacific Highway. The Pacific Highway is elevated to pass over Yelgun Road. There are no dwellings along the Pacific Highway which can see the project application area. South bound motorists obtain small glimpses to the site through roadside vegetation.

Technical Paper A graphically presents the existing visual character of the site and addresses the potential visual impacts.

As the site is largely visually unobtrusive (other than some limited portions of the site such as at its entrance at Tweed Valley Way and some views into the site from Jones Road) and the visually inward nature of the site the proposal is unlikely to have any material impact on the visual quality of the locality.

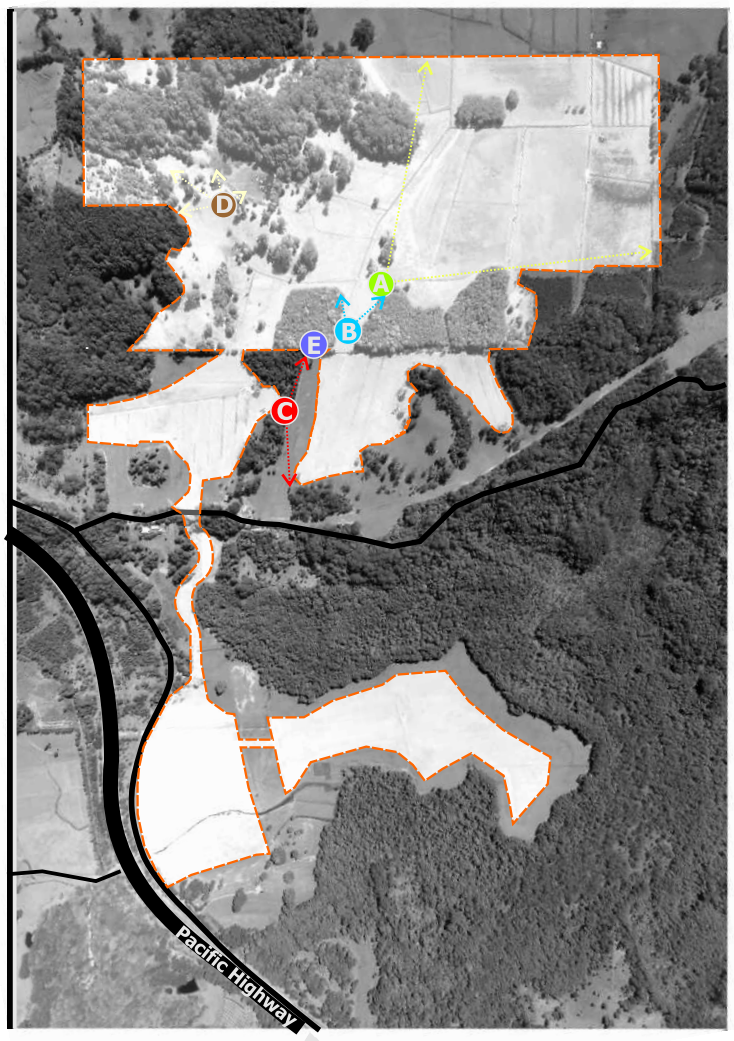
4.4 Infrastructure Provision Capacity

DGR 4.1 Address existing capacity and requirements of the development for sewerage, water, electricity, waste disposal, telecommunications and gas in consultation with the relevant agencies. Identify and describe staging, if any, of infrastructure works.

The Parklands site is currently serviced with electricity and telecommunication services to a 'farm standard'. Consultation regarding future electricity and telecommunication services with relevant providers has identified future services are able to be provided.

No gas service is provided or required other than use of available bottled gas services.

Flat, low grasslands with patches of vegetation occupy the northern parts of the site.
This photograph looks northward toward proposed event space and the boundary.



Grassland between two dense vegetation patches. This photograph looks northward to the site.

Forested areas form a backdrop to the flat open grass areas of the site, protecting them from view from many locations.

This photograph looks northwest from near the large dam towards the site proposed for the Conference Centre.

This photograph shows one of the track accesses which exist between forest patches.

North Byron Parklands

Date 25.02.10
Author SDR
Reference 09_120

Not to scale

IMPORTANT NOTE |
Cadastral information is subject to survey. The alignment of the aerial photography and vectoral overlays is approximate only.

Sources | Aerial Photography: Bill Mills (2009) **| Photography:** Sheryn Da-Re

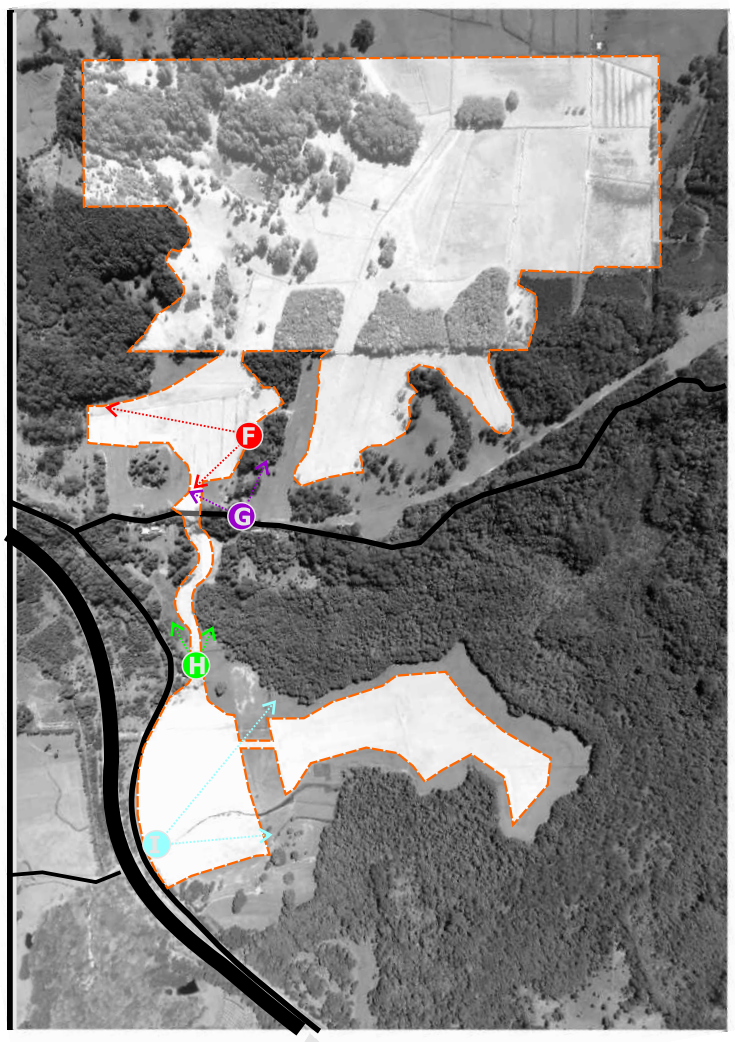
Prepared by
design team Ink
landscape architecture | urban design

Plan | **4.3**

Photographic Plates
Views from within the Site

North Byron Parklands | Tweed Valley Way & Jones Road

This photograph looks westward toward proposed event space and the resources centre.



This photograph looks from near the existing entry off Jones Road northward towards proposed event area and habitat areas.

This photograph looks northward towards the proposed spine road which links the northern and southern parts of the site.

This photograph is taken from the Pacific Highway. It looks eastward over the southern parts of the site which are mostly flat with a backdrop of forest.
The flat grassy parts are proposed for use as carparking for large events (only).
A residence owned by the proponents is located on the property just off the right of the photo.

North Byron Parklands

Date 25.02.10
Author SDR
Reference 09_120

Not to scale

IMPORTANT NOTE
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Sources | **Photography:** Sheryn Da-Re

Prepared by
design team Ink
landscape architecture | urban design

Plan | **4.4**

Photographic Plates
Views from within the Site

North Byron Parklands | Tweed Valley Way & Jones Road

Reticulated water supply and municipal sewerage is not available to the site nor within a reasonable distance of the site. On-site water supply and wastewater treatment will ultimately be provided. However, it is proposed that initial events on the site would be wholly serviced with imported potable water and by exporting wastewater to licensed treatment facilities.

Technical Paper F1 - Integrated Water Cycle Assessment and Management, addresses both short and long capacity and requirements of the development for sewerage and water.

The Stage 1 transportation of wastewater off the site to licensed treatment works is addressed within **NBP Standard 005** – Wastewater Management. This standard provides the operational parameters for event operators to comply with so as to adequately manage wastewater for any event.

The proposed onsite wastewater treatment facility, planned to be constructed in Stage 2, is described in detail in **Technical Paper F1**. The facility includes a sewage treatment plant, effluent holding dams, effluent polishing wetlands and dedicated effluent irrigation areas. The facility would have a daily treatment capacity of 700kL.

The initial water supply arrangements, together with the longer term onsite water supply are addressed in DGR 4.2 below.

DGR 4.2 Provide details on how and where water supply will be derived from to service the site.

The initial phase of event usage, in Stage 1, will involve transporting potable water to the site by licensed vehicles. This is a standard approach which has been used for other event sites without a reticulated water supply.

The demand for water will depend on the size and characteristics of each event. The **NBP Standard 004** – Water Management provides the operational parameters for event operators to comply with so as to provide a suitable and adequate supply of potable water to any event.

Robust stormwater and water quality management strategies will be in place to ensure no significant adverse impacts occur in the receiving environment – see **Technical Papers O, P & Q.**

The Integrated Water Cycle Assessment and Management **Technical Paper F1** addresses the provision of on site water supplies to service the site. The report concludes:

> *'Based on data collected during site investigations, laboratory analysis and RUSTIC modelling there is sufficient water supply to service the demands from the maximum proposed utilisation of the site.*
>
> *This demand could be met from the harvestable use rights of the property and would involve the use of water from the existing farm dam and the construction of a new farm dam of 7.5ML capacity. A potable water treatment plant and potable water storage tank would also be necessary.*
>
> *Rainwater tanks would be added to permanent structures including the conference centre and community centre as part of the stormwater management process and to supplement the water supply.'*

The proposed water treatment plant, planned to be installed in Stage 2, is described in detail in **Technical Paper F1**. It would draw raw water from the existing and proposed farm dams and treat it to a potable standard, as defined by the Australian Drinking Water Guidelines (ADWG's). The proposed water treatment capacity of the plant is 1ML per day. The new farm dam storage is 7.5ML.

DGR 4.3 **Consider the capacity of existing infrastructure, services and facilities within the Byron shire to accommodate the temporary population increase generated by the proposed large-scale events.**

The above sections address the provision of utility services. Other key services are health, holiday accommodation and policing.

Hospitals
Events require medical, ambulance and hospital service because of demands created by the temporary increased population.

As detailed within **Technical Paper K**, large events at Parklands will be serviced by the establishment of an on-site, self contained medical centre which can provide a high level of care, thus reducing the referral of cases to hospital. Secondly, an on-site ambulance, contracted from the Ambulance Service of NSW, allows transportation of patients to tertiary hospitals.

The on-site self contained medical centre model was trialled at the SITG event in 2009 and resulted in a reduction of 80% of transports to the local hospital. The model proposed for Parklands would result in transportation of patients to the nearest tertiary hospital which is located at Tweed Heads.

Holiday Accommodation
Accommodation of the temporary population increase associated with larger events at Parklands is able to occur in large part by the provision of on-site camping for up to 50% of the patrons. This will dilute spiked accommodation demand in the locality generally. Unmanaged demand will be reduced from that observed with historical festival venues as the land is located so patrons can either utilise the accommodation available within Byron Bay or the similarly large availability of visitor beds on the Tweed Coast.

The Dept of Planning has given Byron Shire Council notice that it intends to introduce a new regulatory standard in relation to "holiday letting". The proponent is confident that the Department will appropriately address this matter and holiday accommodation issues which have previously caused amenity difficulties for residents of the Shire will be appropriately regulated.

Police Services
Police in the Byron Bay locality are familiar with festivals and cultural events. Parklands has consulted with senior police officers. They have indicated that whilst resources will need to be bolstered during events, particularly large events, such capacity increase is within the capability of the Regional Command.

4.5 Traffic & Access

DGR 5.1 **Prepare a traffic impact study in accordance with table 2.1 of the RTA's *Guide to Traffic Generating Developments.***

Traffic impacts are addressed in **Technical Paper C** with a detailed description and analysis of the existing road and public transport network. The assessment identifies current traffic conditions in the vicinity of the site, considers traffic impacts associated with the proposed development and projects future impacts on the road network.

The Parklands site was chosen as an event site due to its location in the context of the local road system. As detailed within the **Technical Paper C,** the site is located in close proximity to both the national, recently upgraded, highway and a large highway interchange, the Yelgun interchange. The majority of event traffic would use a short section of the local road system between the highway and the site.

Below in DGR 5.2, the traffic impacts of the proposal are summarised.

A construction phase Traffic Management Plan (TMP) is provided within **Technical Paper O**. The TMP has been prepared in accordance with the Roads and Traffic Authority's Manual "Traffic Control at Work Sites – Version 3" and AS 1742.3- 2002 "Manual of Uniform Traffic Control Devices Part 3: Traffic Control Devices

for Works on Roads" – see **Technical Paper C.**

The aim of the TMP is to control traffic movements onto the site, and traffic and pedestrian movements past the site during the construction phase of the development, in order to effectively manage safety and access issues for construction vehicles, pedestrians and the general public.

These above described technical papers have informed the preparation of **NBP 002 – Transport and Traffic Management**, the Parklands management standard for managing the transport and traffic.

DGR 5.2 Provide an analysis of the operational capacity, traffic amenity and safety of the Yelgun Interchange with the Pacific Highway to accommodate levels of traffic generated by the proposal.

An analysis of the traffic impacts of the development has shown that the smaller events planned for the site will not have a material impact on the surrounding road network.

For the '100% capacity' and '70% capacity' scenarios, higher car occupancies and public transport mode shares are required to reduce their traffic impacts to within acceptable levels.

In order to reduce the traffic impacts of the events at the Yelgun Interchange to acceptable levels, the following standards have been adopted for travel targets and patron numbers:

- Moderate event scenario: no change in traffic generation required to stay within acceptable traffic impacts, but transport measures to be introduced to improve car occupancy.
- '70% capacity' event scenario: car occupancy of 2.9 people per car, high (39%) public transport mode share.
- '100% capacity' event scenario: car occupancy of 3.2 people per car, high (39%) public transport mode share.

Traffic management measures will ensure to monitor and manage queues at the Yelgun Interchange.

The capacity analysis of Tweed Valley Way and the Pacific Highway are not critical constraints. However, the analysis indicates that capacity of the Pacific Highway at Easter time by 2030 and beyond would be a constraint. The following standards have been adopted regarding the timing of the larger sized events:

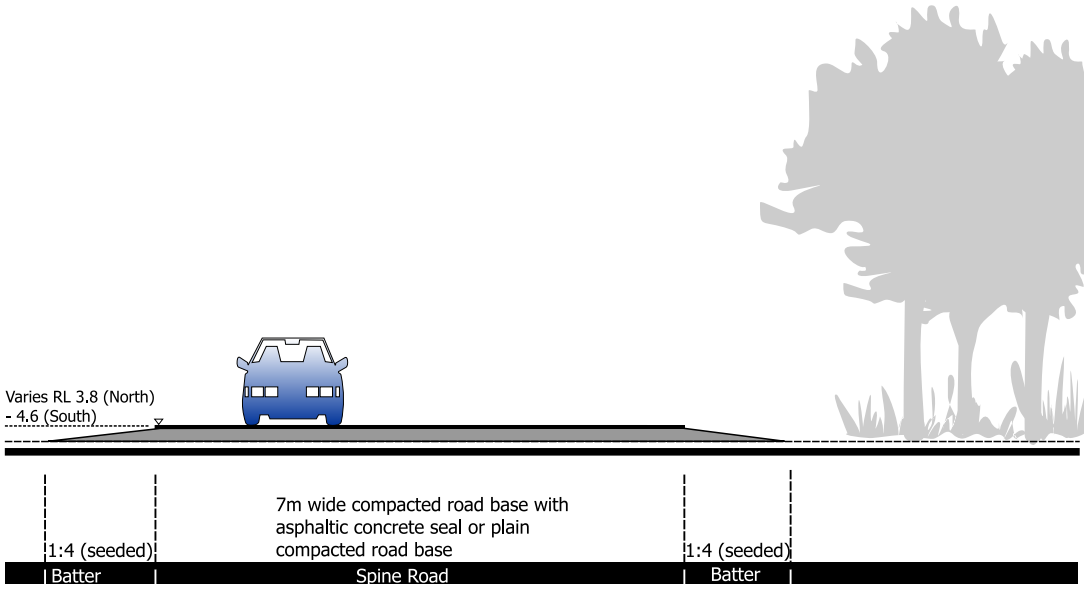
- Reduce the number of day-patrons for a '100% capacity' event held at Easter in 2015 from 24,400, as well as implementing transport initiatives to achieve a car occupancy of 3.2 people per car and the higher public transport mode share.
- Implementing transport initiatives to achieving a car occupancy of 3.2 people per car and the higher public transport mode share for a '100% capacity' event held at busy times of the year such as during Christmas holidays, end of university break and the October long weekend (NSW).
- Implementing transport initiatives to achieving a car occupancy of 2.9 people per car for a '70% capacity' event held at Easter or busy times of the year such as during Christmas holidays, etc.
- Avoid holding '100% capacity' and '70% capacity' events on the Easter long weekend from 2020.

DGR 5.3 Provide details on the connection between the proposed Spine Access Road and Tweed Coast Road.

The Spine Road is a private road connecting the two previous separate unlinked farms now in single ownership.

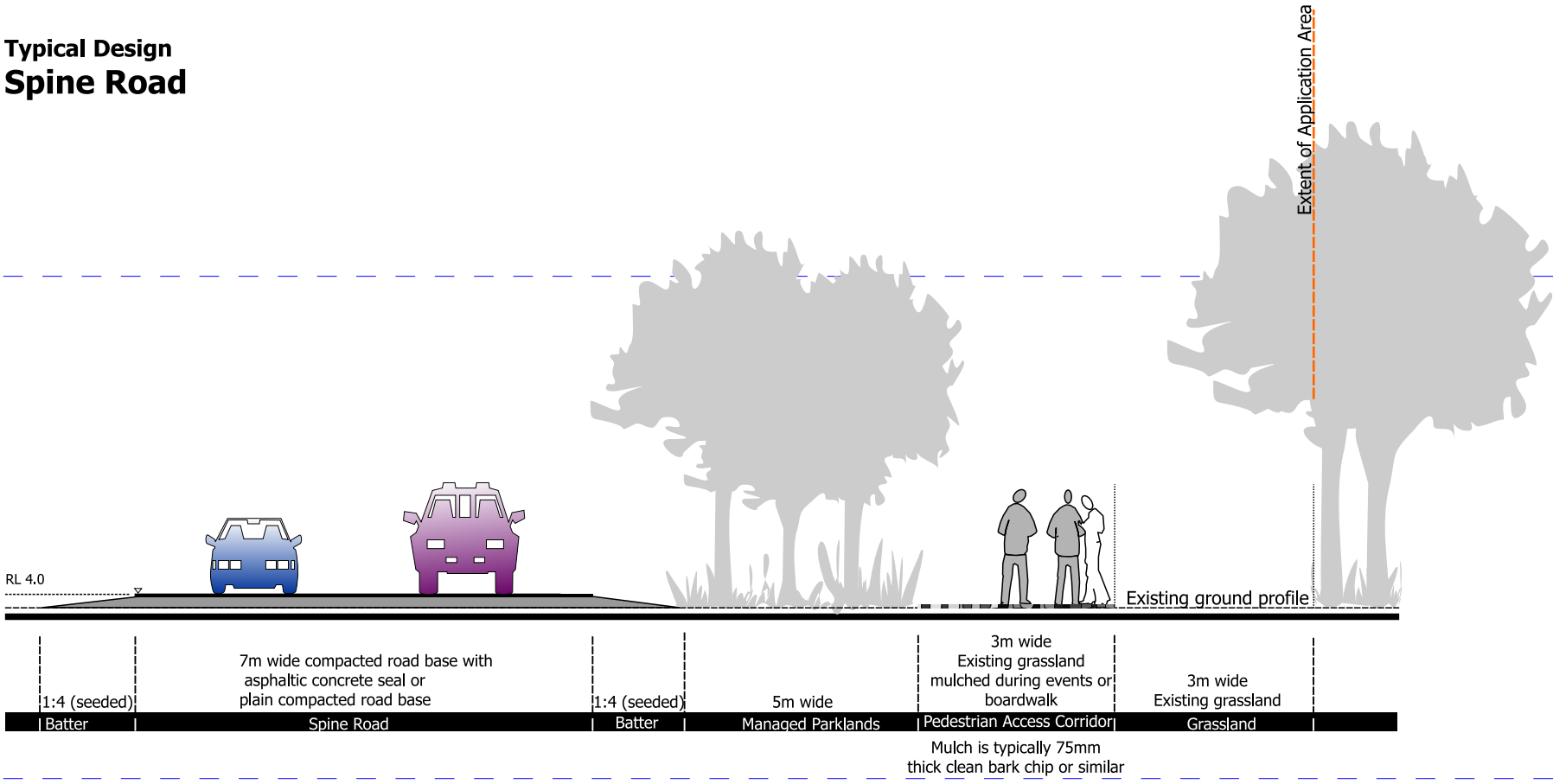
The accompanying **Plan Set** provides engineering details of the location and design of the Spine Road.

As depicted in the **Plan Set**, an underpass or an 'at grade' intersection is proposed where the Spine Road traverses Jones Road.
The Spine Road connects to the northern boundary of the site where public road access is available to Wooyung Road which links to



Typical Design

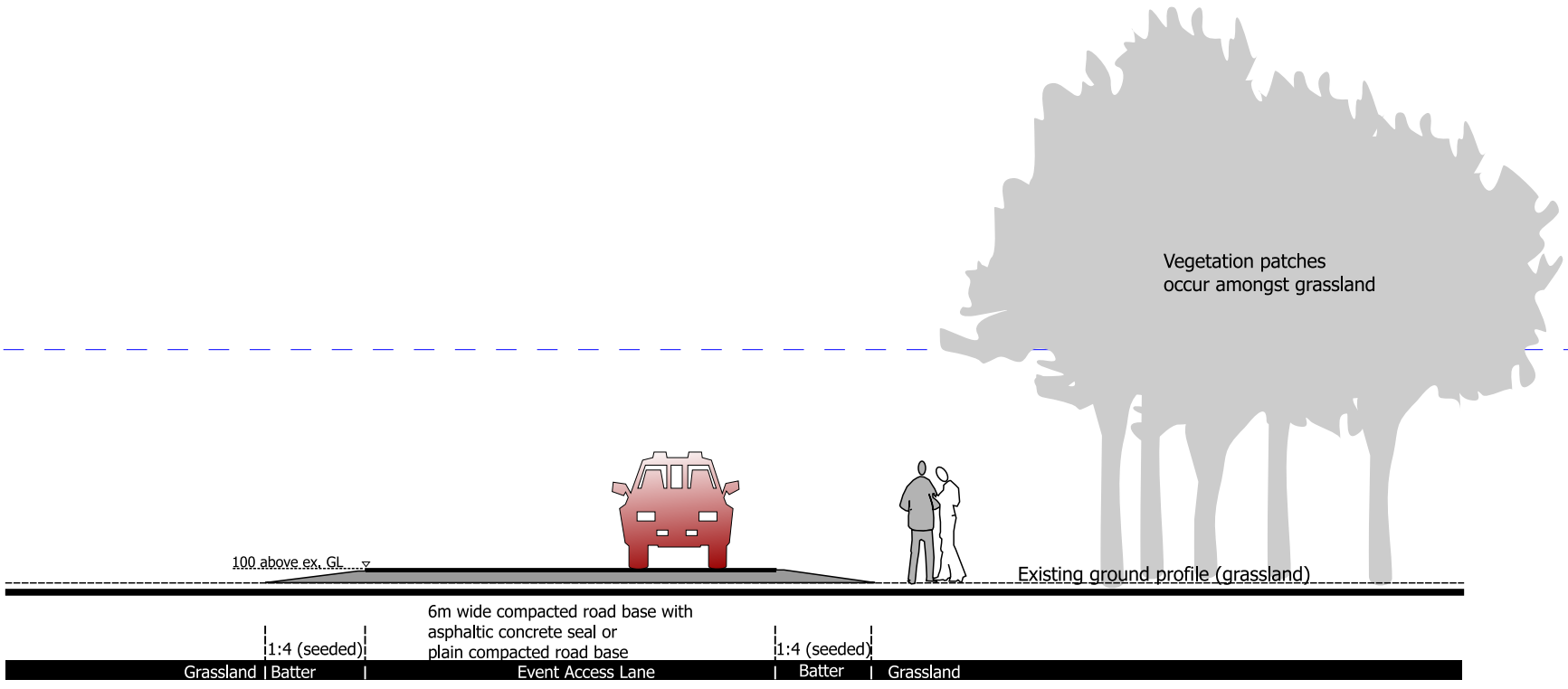
Spine Road



Typical Design

Spine Road through Access Corridor

The Spine Road is the main access road through the site.



Typical Design

Event Access Laneway

Event Access Laneways provide general access around the site and to performance and camping areas during events.

North Byron Parklands

Date 25.02.10
Author SDR
Reference 09_120

Not to scale

IMPORTANT NOTE
Cadastral information is subject to survey. The alignment of the aerial photography and vectoral overlays is approximate only.

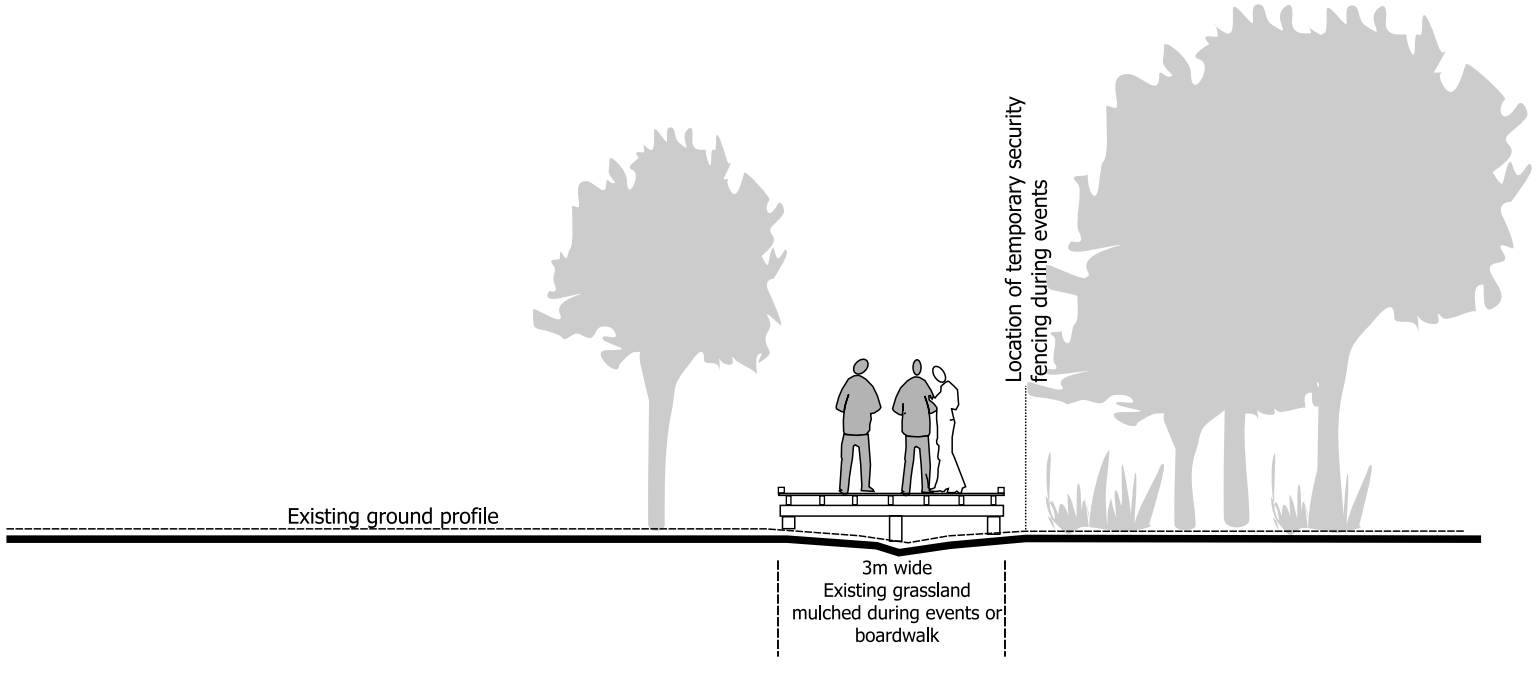
Sources | **Photography**: Sheryn Da-Re

Prepared by
design team Ink
landscape architecture | urban design

Plan | **4.5**

Typical Design Roads and Laneways

North Byron Parklands | Tweed Valley Way & Jones Road



Typical Design

Boardwalks

Composite fibre framing and modwood decking

Modwood: manufactured from recycled plastic milk bottles and pine waste

Hardwood timber boardwalk with kickrails

Images of boardwalks similar to those proposed

North Byron Parklands

Date	23.07.10
Author	SDR
Reference	09_120

Not to scale

IMPORTANT NOTE |
Cadastral information is subject to survey. The alignment of the aerial photography and vectoral overlays is approximate only.

Sources | **Photography**: Sheryn Da-Re |

Prepared by

design team Ink
landscape architecture | urban design

Plan | **4.6**

Typical Design Boardwalks

North Byron Parklands | **Tweed Valley Way & Jones Road**

the Tweed Coast road system. For all proposed site uses access to the site from this direction is limited to emergency vehicle use only. No public or patron access will be available from this access option.

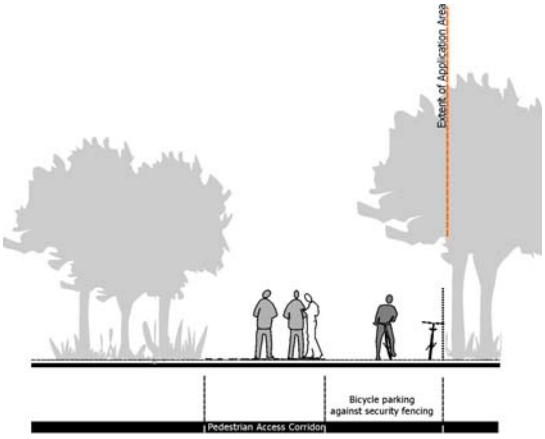
DGR 5.4 Provide details on the location and total number of car parking spaces to be provided as part of the proposal.

All car parking required for the proposed site usage will be provided within the site. No "on street car parking" is proposed.

Car parking is provided in the context of the proponents adopted objectives which seek to reduce the demand for private vehicle use and associated car parking and traffic generation requirements.

The portion of the site south of Jones Road, as depicted within **Plan 1.1**, accommodates the primary car parking area for larger events. This area will accommodate 7,882 cars.

Within the northern portion of the site, car parking for day patrons, campers, workers and guests is provided depending on the size, type and layout of the event. Suitably located disabled carparking is to be provided with convenient access to the event area. Bicycle parking will be provided in a 'priority' location to encourage bicycle uses.



Typical Design
Bicycle Parking

DGR 5.5 Provide details of any application to close the Crown Road within and south of Lot 403.

This Crown Road has been closed and purchased by the proponent and this lot (Lot 1 DP 1145020) now forms part of the application area.

4.6 Hazard Management & Mitigation

DGR 6.1 Identify any contamination on the site and appropriate mitigation measures in accordance with the provisions of *SEPP 55 – Remediation of Land.* In particular, investigations should be undertaken to identify and contamination from former banana plantations once located on the site.

Under SEPP 55 the consent authority is required to consider whether the land has been contaminated by past land uses.

Clause 7 of SEPP 55 requires a consent authority to be satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the development before consent is granted.

The preliminary investigation (see **Technical Paper N**) reviewed the previous landuse history of the site and undertook investigations in accordance with applicable guidelines. The report concluded and recommended as follows:

- The soil-sampling regime was based on a systematic sampling pattern. The soil analysis confirmed site history of no metal or pesticide contamination of the soil within the area investigated.
- All composite analysis results showed contaminant levels below the modified Column 1 HBIL (with the exception of Chromium and Manganese). These metals are naturally found at high levels in soils of this region (northern NSW); therefore elevated levels found at the

site are attributed to these background levels rather than any source of contamination at the site.
- Analysis on a single soil sample taken from the vicinity of an abandoned car body (SP66) did indicate the presence of TPHs. Recommended remediation for this issue is the removal of the car body from within the Melaleuca Forest. Soils should be retained in situ as best possible. Natural volatilisation and degradation is anticipated to remediate the area over time. While no contamination was identified in the vicinity of other wastes located on the site, the removal of such wastes to a licensed landfill facility is recommended to minimise any future contamination issues on the site.

Given the above results no individual soil analysis or detailed investigation or site remediation is required. Based on the findings of this preliminary investigation, the site is not considered to represent a significant risk of harm to end users of the temporary place of assembly with camping and associated infrastructure.

DGR 6.2 **Identify the presence and extent of acid sulfate soils on the site and, where relevant, appropriate mitigation measures. Identify the need for an Acid Sulfate Management Plan (prepared in accordance with ASSMAC Guidelines).**

Technical Paper M1 provides a specialist acid sulfate soils assessment by EAL.

Plan 2.6 graphically depicts the location of acid sulphate soils on the site.

The findings of the Preliminary ASS Assessment can be summarised as follows:
- Three (3) main landform units dominate the site: rolling hills and ridgelines on Narnaleigh-Fernvale metamorphics, low-lying Pleistocene sand sheets overlying peat and alluvium and deep Quaternary alluvium (alluvial fans and valley infills) derived from the surrounding elevated metamorphic hills and ridges;
- Topsoils at the site ranged from fine to medium silty/clayey sands (within low areas immediately adjacent hills and ridgelines), highly organic peat soils (silty high plasticity clay) and silty clays/sandy clays (within interbarrier alluvial plains) and silty clays upon midslopes of hills and ridgelines;
- Within the lands below 10m AHD, subsoils consist of high to medium plasticity silty clays/sandy clays and clays with sporadically distributed sand (lenses) and occurrences of indurated sands (coffee rock);
- Sixty-nine (69) individual samples were collected from seventeen (17) soil boreholes and analysed for TAA and %SCR. Six (6) soil bores were found to contain potential ASM in excess of the adopted action criteria values (refer s. 3.3). All excavated boreholes recorded TAA values above the adopted action criteria, indicating a likelihood of Actual ASS;
- Analysis indicates that ASM is predominantly within soils below 3.0m AHD;
- The assumed extent of peat soils extends across the northern section of the site, confined to the north-eastern allotments (Lots 403 & 403 DP755687). No indications of peat soils were encountered within the southern and western allotments below the ridgeline supporting Jones Road;
- Groundwater heights were observed to mimic local topography with typical depths to groundwater recorded as 1.5m AHD within the low-lying alluvial and back barrier plains. Excavations proposed as part of the NBP Parklands development would result in the

excavation and disturbance of identified ASM, triggering the need to implement comprehensive ASS management works as part of the development application.

An Acid Sulfate Management Plan is set out in **Technical Paper M2.** The management plan addresses acid sulphate risks, bunding requirements, soil treatment and water treatment measures. The plan has been designed to:

- prevent any detrimental effects on the environment with potential disturbances of PASS
- Monitor any acid generation from exposure of PASS; and
- Treat ASS/PASS materials and validate that the acid has been appropriately neutralised

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DGR 6.3 Address the requirements of *Planning for Bush Fire Protection 2006* (RFS).

Technical Paper L provides a specialist bushfire assessment by Barry Eadie Consulting Pty. Ltd. As depicted in **Plan 2.11**, the land is partly classified as bushfire prone and therefore, the bushfire assessment has been undertaken in accordance with the requirement of Planning for Bushfire Protection 2006. The assessment was undertaken with consultation with NSW RFS personnel.

The proposal meets with the requirements of the NSW Rural Fire Service in correspondence dated 5 October 2007 and includes the requirements for the residential portions of the Conference Centre and the Cultural Centre.

The Bushfire Assessment recommendations required:

(a) APZ's are required to be in accordance with Section 3.4 of this report which requires a 10 metre APZ.

(b) If any trees are to be located within the envisaged APZs, this is considered acceptable, providing the following conditions are met:
   i. Vegetation is not to touch or overhang buildings (canopy vegetation must not be within 5 metres of any building/dwelling);
   ii. Vegetation is well spread out and does not form a continuous canopy
   iii. (separated by a minimum of 2 metres), especially within the IPA;
   iv. Vegetation is not species that retain dead material or deposit excessive quantities of ground fuel in a short period or in a danger period; and
   v. Vegetation is located far enough away from buildings so that it will not ignite the building by direct flame contact or radiant heat emission.

(c) Woodpiles, combustible material storage sheds, large areas/quantities of garden mulch and stacked flammable building materials are not to be located within IPA of buildings.

(d) Reticulated or bottled gas shall be installed and maintained in accordance with AS/NZS 1596-2002: Storage and Handling of LP Gas and the requirements of the relevant authorities.

(e) Water supply shall be as outlined in Section 3.9 of the report which requires a 10,000 litre water supply at each stage and camping area.

(f) An Evacuation and Emergency Management Plan shall be prepared in accordance with the RFS requirements.

Specific management measures are contained within the Parklands Environmental Management Standard addressing fire management is NBP Standard 006 – Fire Management.

DGR 6.4 **Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.**

Technical Paper U1 provides a geotechnical assessment of the building sites for the proposed administration/cultural centre, gatehouse and conference centre.

For the gatehouse building site, the following key parameters were identified:

Silty Clay – Natural CL-CH
Class M: Moderately reactive in accordance with the guidelines of AS 2870
The Potential Hazard Classification of the site is Class C: Minor Hazard in accordance with Appendix E, Table 1 of AS 1726.

The report concludes that the site conditions have adequate bearing capacity from 300 mm below the ground surface for the proposed gatehouse. The report states there were no signs of slip or settlement at the time of the investigation and the site has been assessed as stable and will not be affected by landslide or subsidence when the building is constructed using good engineering practice.

For the administration/cultural centre site, the following key parameters were identified:

Silty Clay – Natural CL
Class M: Moderately reactive in accordance with the guidelines of AS 2870
The Potential Hazard classification of the site is Class C: Minor Hazard in accordance with Appendix E, Table 1 of AS 1726.

The report concludes that the sub-grade consists of moderately reactive silty clay that has adequate bearing capacity from 300 mm below the ground surface for the proposed administration/cultural centre site. The report states there were no signs of slip or settlement at the time of the investigation and the site has been assessed as stable and will not be affected by landslide or subsidence when the building is constructed using good engineering practice.

For the conference centre site, the following key parameters were identified:

Silty Clay – Natural CL
Class M: Moderately reactive in accordance with the guidelines of AS 2870
The Potential Hazard classification of the site is Class C: Minor Hazard in accordance with Appendix E, Table 1 of AS 1726.

The report concludes that the sub-grade consists of moderately reactive silty clay that has adequate bearing capacity from 300 mm below the ground surface for the proposed conference centre. The report states there were no signs of slip or settlement at the time of the investigation and the site has been assessed as stable and will not be affected by landslide or subsidence when the building is constructed using good engineering practice.

In this context, the site is suitable for the erection of the proposed buildings.

Technical Paper U2 provides a geotechnical assessment for the erection of temporary structures within the event application area.

The assessment concludes "the results of the inspection and testing for the temporary structures at the site indicate the estimated bearing capacity to be: 100kPa or greater allowable blearing capacity from 300mm below the ground surface".

In this context, the site is suitable for the erection of temporary structures.

DGR 6.5 **Provide and assessment of any flood risks on site (for the full range of floods including events greater than the design flood, up to probable maximum flood; and from coastal inundation, catchment based flooding or a combination of the two) and having consideration of any of the relevant provisions of the NSW floodplain Development Manual 2005. The assessment should determine: The flood hazard in the area; address the impact of flooding on the proposed development, address the impact of the development (including filling) on the flood behaviour of the site and adjacent lands; address adequate egress and safety in a flood event.**

Technical Paper G provides a specialist flooding assessment addressing the flood risks for the full range of floods, the flood hazard and the impact on flood behaviour by the proposed development. The assessment identifies flood hazard as follows: 'Most of the site is categorised as 'low hazard', with a few localised areas of 'high hazard'. The flood hazard along the spine road and on the site is generally low for the 100 year ARI event.'

The proposed buildings are located on flood free land with only roads being located in flood prone land. The assessment of impact on the proposed roads within the site is identified while the report concludes: 'There are no measurable flood impacts off-site."

Technical Paper G has informed the preparation of **NBP 0012 – Flooding Management**, the management standard for managing the risk of flooding.

Technical Paper W2 addresses egress and safety in a flood event. The Flood Evacuation Assessment identifies the necessary evacuation times for various event categories together with evacuation routes. The report provides a sample evacuation plan and recommendations relating to personnel roles in the event of a flood and the necessary liaison with the SES.

Technical Paper W2 has informed the preparation of **NBP 009 – Evacuation Management**, the management standard for evacuation management.

DGR 6.6 **Assess the potential impacts of an increase in the rainfall intensity on the flood regime of the site and adjacent lands with consideration of *Practical Consideration of Climate Change – flood plain Risk Management Guideline (DEC, October 2007).***

Technical Paper G has assessed the potential impacts of an increase in flood intensity with respect to applicable DECCW climate change guidelines. 'Medium' and 'high' climate change events for the 100 year model have been simulated for the developed site. These levels are mapped in Figure 5-14 and Figure 5-15 within **Technical Paper G**.

The two scenarios are:

- Medium increase = 20% increase in rainfall intensity + 55cm sea level rise
- High increase = 30% increase in rainfall intensity + 91cm sea level rise

As a result of these increases, on-site levels in the vicinity of the car park area have generally risen by 1.15m for the medium scenario and 1.29m for the high scenario. In the vicinity of the event area, levels have generally risen by 1.46m for the medium scenario and 1.62m for the high scenario. Water levels in the vicinity of the resource centre have increased by 0.18m for the medium scenario and 0.20m for the high scenario.

The report within **Technical Paper G** concludes that 'The spatial extent of the flooding in the vicinity of the site does not change significantly. The flood mechanism through the site has not changed.

Consideration of climate change impacts results in the proposed buildings remaining flood free, the flood mechanism not changing and with higher water levels in the flood prone portions of the site.

DGR 6.7 **Address potential odour impacts from the proposed wastewater treatment plant and mitigation measures proposed with reference to *Assessment and Management of Odour From Stationary Sources in NSW (DEC 2006).***

Technical Paper F1- Integrated Water Cycle Assessment and Management North Byron Parklands which provides details of the proposed wastewater treatment plant have addressed potential odour impacts. The report, in Sections 7.2.3 and 7.4.1, address the location of the wastewater treatment plant and its compliance with Byron Shire DCP setbacks and well as the wastewater plant components which have been chosen to minimise odour impacts.

4.7 Water Cycle Management

DGR 7.1 **Address and outline measures for Integrated Water Cycle Management (including storm water) based on Water Sensitive Urban Design principles which address impacts on the surrounding environment, drainage and water quality controls for the catchment, and erosion and sedimentation controls at construction and operational stages.**

The only significant construction activities within the site are associated with access and pipelines.

The recommendations of the Acid Sulfate Management Plan within **Technical Paper M** are adopted within the draft Statements of Commitments to ensure protection of the environment.

An assessment of potential IWCM options for the Parklands site was undertaken to identify individual components that may be appropriate to the site. Stormwater management concepts are discussed and recommended management strategies incorporating elements of Water Sensitive Urban Design are included in the attached Water Management Plan.

MUSIC modelling has been used to assess the efficacy of the recommended stormwater treatment train and demonstrates the proposed development will have no adverse impacts on the quality of waters discharging from the site.

Soil data has been used to assess the likelihood of erosion and sedimentation impacts during the construction and operation of the site. Based on the very low proportion of the site that will be disturbed and with the implementation of standard erosion and sedimentation control practises, SOILOSS modelling shows that the potential impacts can readily be managed.

Technical Paper Q provides the Stormwater Management Plan which has determined that there will be no measurable increase in runoff volumes and pollutant concentrations discharging to the existing drainage network.

Technical Paper P provides the Erosion and Sediment Control Plan which represents surface water management measures recommended for the site.

DGR 7.2 **Assess the impacts of the proposal on surface and groundwater hydrology and quality during both construction and occupation of the site. Provide details on any monitoring and/or mitigation plans to ensure surface water and groundwater are not detrimentally impacted upon.**

Technical Paper F - Integrated Water Cycle Assessment and Management, assesses the impacts of the proposal on surface and groundwater hydrology and quality

Irrigation of effluent will be undertaken on a soil moisture deficit basis, minimising infiltration of effluent and recharge to groundwater. MEDLI modelling shows that irrigation based on soil water deficit is sufficient to consume all of the effluent generated from site usage and that there would be no surface runoff of effluent, or surface water or groundwater impacts.

The Water Management Plan appended to **Technical Paper F** contains monitoring requirements for groundwater and surface water to ensure that any site related impacts are identified and appropriately managed. The plan provides the details, specifications and reporting mechanisms for monitoring

For groundwater, the following parameters are recommended for measuring and analysing:

- pH
- Electrical conductivity
- Thermotolerant coliforms
- Total Nitrogen
- Total Phosphorus

For surface water monitoring, the following parameters are recommended for measuring and analysing:

- pH
- Electrical conductivity
- Dissolved oxygen
- Turbidity
- Suspended solids
- Thermotolerant coliforms
- Total Nitrogen
- Total Phosphorus

The assessment concludes in regard to the impacts of the proposal on surface and groundwater hydrology and quality:

'Provided that the site is managed in accordance with the Water Management Plan, it is considered that the proposed use of the site will be sustainable and that impacts to groundwater and the on site and adjacent environmental reserves will be avoided.'

DGR 7.3 Consider the nature and profile of the groundwater regime under the site, including any hydrological impacts which would affect its depth or water quality, result in increased groundwater discharge, impact on the stability of potential acid sulfate soils in the vicinity, or affect groundwater dependant native vegetation.

Groundwater investigation assessments demonstrate that the groundwater quality is already impacted, from the historical agricultural use of the site.

To supplement the existing information five groundwater monitoring wells were installed to a maximum depth of 3m below ground surface level using a truck mounted solid flight auger. The monitoring wells were installed for the purpose of monitoring groundwater levels and obtaining groundwater samples to facilitate the establishment of baseline groundwater characteristics.

MEDLI modelling shows that there will be no surface runoff of effluent or surface water or groundwater quality impacts. Effluent irrigation would be based on soil moisture deficit meaning that there would be minimal recharge to groundwater and consequent discharge from the site. As the water quality of effluent percolating below the root zone is generally better than the existing groundwater quality, and that large buffers would be provided and because rehabilitated, it is unlikely that groundwater dependent vegetation would be affected.

DGR 7.4 Consider the requirements of *DECCW's NSW Farm Dams Policy.*

Section 6.2.2 of **Technical Paper F** - considers the requirements of *DECCW's NSW Farm Dams Policy*. The assessment identifies the potential harvestable water rights of the Parklands site based on the provisions of the Farm Dams Policy.

The existing farm dam on the site contains less than the site's Maximum Harvestable Use Rights capacity and therefore does not require approval from the NSW Office of Water. However, some maintenance is necessary to bring the dam structure into compliance with the requirements of the policy. The proposed new dam would also be within the site's Maximum Harvestable Use Rights capacity and again would not need to be licensed. Construction of the dam would be undertaken in accordance with the Farm Dams Policy.

4.8 Heritage & Archaeology

DGR 8.1 Identify whether the site has any significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance. The assessment must address the information and consultation requirements of the draft *Guidelines for Aboriginal Cultural heritage Assessment and Community Consultation (DEC 2005) and Interim Community Consultation Requirements for Applicants (DEC 2004).*

The Cultural Heritage Assessment within **Technical Paper H** assesses whether the site has any significance to Aboriginal cultural heritage by undertaking the applicable consultation requirements, field surveys with stakeholders, review of previous assessments and in the case of a one portion of the site, undertaking archaeological test excavations.

The assessment was undertaken in accordance with applicable consultation requirements as addressed within **Technical Paper H** which provided the following summary of the status of the Aboriginal Cultural Heritage within the locality:

'Eight Aboriginal stakeholders/stakeholder groups registered an interest in this assessment as a result of implementation of the *Interim Aboriginal Community Consultation Requirements for Applicants* (DEC 2004) and draft *Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation* (DEC 2005). One of these subsequently withdrew their stakeholder interest.

The proposed Land Use Structure Plan, Aboriginal cultural heritage issues and significance values, potential impacts of the proposal on these values, and preferred impact avoidance and mitigation strategies were discussed during field inspections conducted with the stakeholder representatives. As a result of these discussions, it was resolved that archaeological test excavations should be undertaken on the proposed spine road corridor inland of the registered Yelgun flat 1 open campsite/artefact scatter. The recommended test excavations were duly completed with stakeholder assistance.

The Aboriginal stakeholders hold Marshalls Ridge to represent a traditional pathway used to access ceremonial sites on the coastal plain at Wooyung. Due to their perceived connection with this traditional transit, artefact occurrences recorded on Marshalls Ridge, its fringing spurs, and elsewhere within the study locality, are assessed to be of high social/cultural significance. However, the stakeholders advised that, to their knowledge, the proposal would not affect any unmodified sites or places of ceremonial, mythological or otherwise sacred/spiritual significance, attachment or concern, and that (owing to its high level of disturbance and apparent absence of cultural materials) the proposed spine road cut and overfill tunnel across Marshalls Ridge would not compromise the values attributed to the wider ridgeline.

The natural environment offered shelter, food and other resources to its traditional

inhabitants. The remaining forests at Yelgun provide a physical link with the traditional past, and conservation of these forests and their biodiversity is integral to maintaining contemporary sociocultural values.

Development of the cultural events venue would not impact upon any of the natural forest areas and existing biodiversity would be maintained and potentially enhanced by a program of forest restoration and weed removal. Given that appropriate steps would be taken to exclude unauthorised human access during cultural events, the Aboriginal stakeholders agreed that the proposal would not affect the socio-cultural values of the natural environment.

Although the Land Use Structure Plan was designed to avoid all registered Aboriginal site locations, the archaeological test excavations revealed a disturbed low-density occurrence of artefacts within the proposed spine road corridor inland of, and associated with, the registered Yelgun flat 1 campsite/artefact scatter. Considering the high level of existing disturbance, low artefact density, and the low (if any) additional impacts likely to be sustained as a result of the spine road construction (to be established on over-ground fill), the Aboriginal stakeholders advised that they have no cultural heritage objections to development of the cultural events venue providing the recommendations are implemented. See recommendations below.

DGR 8.2 Identify the nature and extent of impacts, if any, on Aboriginal cultural heritage values across the site.

Technical Paper H identifies the Aboriginal Cultural Heritage values of the site (summarised above) and reports the potential impacts of the proposal on these values, and preferred impact avoidance and mitigation strategies were discussed during field inspections conducted with the stakeholder representatives.

Technical Paper H provides management recommendations, developed in liaison with the Aboriginal stakeholders, designed to avoid and/or mitigate impacts of the proposed development on cultural heritage resources and values. These are as follows:

Recommendation 1:

Prior to the commencement of project-related disturbance works, archaeological test excavations should be conducted on that section of the spur crest and its upper slopes to be affected by construction of the spine road inland of registered campsite #4-2-114/115 to determine the nature and significance of any archaeological evidence within this area. Appropriate management strategies should then be developed (in consultation with the Aboriginal stakeholders) on the basis of the test excavation results, and should be included in the Environmental Assessment for the cultural events proposal.

Recommendation 2:

The proposed protection of all registered Aboriginal sites in close proximity to the study area, and areas containing natural forest both outside and within the study area boundaries (consistent with the Land Use Structure Plan) should be upheld. Given that permanent fencing is not feasible, this protection should include the erection of internal portable human exclusion fencing to separate event patrons from these areas, and the engagement of security officers to ensure that the fences are not breached. Measures to be implemented in this regard should be detailed in the **Event Management Manual**.

Recommendation 3:

Any signage referring to Aboriginal sites and values should only be developed, finalised and installed with the agreement of all Aboriginal stakeholders (or their authorised representatives).

Recommendation 4:

All Aboriginal stakeholders (or their authorised representatives) should be involved in planning and use of the proposed Cultural Centre as far as Aboriginal cultural heritage is concerned.

To address Recommendations 3 and 4, North Byron Parklands should convene meetings with all Aboriginal stakeholders (or their nominated representatives) together (i.e. same time and place), to arrive at acceptable signage and placement of this signage (if any) within the cultural events site, and to reach a memorandum of understanding (MoU) in regards to development and operation of the Cultural Centre, including the public display and dissemination of Aboriginal

cultural heritage information, opportunities for Aboriginal employment, and the content and conduct of any associated activities (e.g. Aboriginal cultural tours).

Recommendation 5:
To avoid unmitigated site destruction, all contractors and their employees engaged in project-related earthworks should be advised of their legal and moral obligations with respect to Aboriginal cultural heritage as part of the required site induction. The following measures would need to be implemented in the event of any identified or suspected Aboriginal objects (as defined under the *National Parks and Wildlife Act 1974*) being detected during any stage of works associated with development of the cultural events venue.

1) All disturbance in the vicinity of the find should immediately cease and temporary protective fencing be erected around the find to define a 'no-go zone'.
2) North Byron Parklands should contact the Aboriginal stakeholders and the project archaeologist to inspect the find so that appropriate actions and management recommendations can be formulated. If the find consists of or includes possible or identified Aboriginal skeletal remains, the DECCW Environmental Line (ph 131 555) and the NSW Police Department should be additionally contacted.
3) Work may proceed at an agreed distance from the find, in consultation with the Aboriginal stakeholders and the project archaeologist.
4) If the find is identified as an Aboriginal object, work causing any disturbance or destruction of the object should not recommence until appropriate actions and management recommendations have been implemented, and clearance has been given by the Aboriginal stakeholders and the project archaeologist (as well as the DECCW if deemed warranted).

DGR 8.3 Describe any actions that will be taken in order to avoid or mitigate impacts the proposal may have on Aboriginal cultural heritage values.

This Environmental Assessment has adopted the five above described recommendations of **Technical Paper H**, developed in liaison with the Aboriginal stakeholders, and has included such within the draft statement of commitments.

DGR 8.4 Identify any items of non-indigenous heritage significance and, where relevant, provide measures for the conservation of such items.

Technical Paper H reports on non-indigenous heritage and concludes 'Thirteen items of potential non-Indigenous heritage value were recorded during the field survey. These include planted trees (designated NBP H-1), and twelve standing dead tree stumps (NBP H-2 to H-13) that reflect the hand-felling of large mature trees (probably brush box) and use of springboards to reach the cut-off point'

In terms of significance regarding the planted fig trees, the report stated 'although apparently planted by a past dairy farmer, the fig tree avenue is not considered to meet any of the significance criteria advocated by the NSW Heritage Council for local or State listing. The fig tree avenue is nevertheless of some local historical interest, contributes to the environmental character of the North Byron Parklands property as a whole, and will be retained in an undisturbed condition in the development-related and wider property management context.'

In terms of significance regarding the notched tree stumps, the report stated 'Each of the twelve notched tree stumps recorded in the field (Table 2) was evaluated in relation to the NSW Heritage Council criteria and gradings outlined above. Although demonstrating incidental characteristics of a class of the local area's cultural places (early timber-getting activities) (Criterion g), the degraded condition of most of the stumps detracts from their representative value, and none are assessed to meet the threshold required for listing at either the local or State level. Despite this assessment, the notched tree stumps are of local historical interest, contribute to the environmental character of the North Byron Parklands property as a whole, and will be retained in an undisturbed condition in the development-related and wider property management context.'

The following recommendations were made:

Recommendation 6:
To preserve localised historical values and interests, the planted fig trees (NBP H-1) and notched tree stumps (NBP H-2 to H-13, plus any other examples within the north-west forest) should be retained *in situ*.

Recommendation 7:
To avoid unmitigated site destruction, all contractors and their employees engaged in project-related earthworks should be advised of their legal and moral obligations with respect to non-Indigenous cultural heritage as part of the required site induction. Should any items of potential non-Indigenous cultural heritage value be discovered or exposed during any stage of the proposed development, all works must immediately cease in the vicinity of the find. The NSW Heritage Office should then be contacted for management advice and clearance given before work resumes in the subject locality.

These recommendations are adopted for the proposal and included within the draft statement of commitments. Any interpretive information in the future cultural centre will include the planted fig trees and notched tree stumps.

4.9 Flora & Fauna

DGR 9.1 **Assess potential direct and indirect impacts of the development on flora and fauna taking into consideration impacts on any threatened species, populations, ecological communities and/or critical habitats and any relevant recovery plan in accordance with *DECCW's Guidelines for development and Activities.***

In the construction phase a small area of Camphor Laurel dominated forest including some lowland rainforest EEC vegetation will be removed to allow construction of the underpass (320 m²) or at grade crossing (~950 m²), as depicted within **Plan 4.7** and detailed within Table 18 of the Ecological Assessment within **Technical Paper E**. This loss of vegetation and disturbance from the construction process will likely temporarily disrupt forage and movement patterns of local fauna e.g. Swamp Wallabies *Wallabia bicolor* and Carpet Pythons *Morelia spilota mcdowelli* in the vicinity. Removal of Camphor Laurels entails a loss of fruit for those species which eat these fruits e.g. flying-foxes, *Pteropus spp.*, pigeons, Pied Currawongs *Strepera graculina,* Figbirds *Sphecotheres vieilloti*. However, the Camphor Laurel resource is extremely abundant and widespread in this location.

Construction of the Spine Road will create a greater local barrier effect for terrestrial fauna if an 'at grade' crossing is used. This is because of the requirement to fill both northern and southern approaches to Jones Road. This can be ameliorated by provision of culverts beneath the road.

The construction of the Spine Road north of Jones Road and the upgrade of existing farm tracks within the application area will produce disturbance by human presence the noise from operation of machinery. Local risks of road kill will be increased for the duration of the construction process. However, such disturbance will be during daylight hours and relatively short-lived.

All personnel working or on the site will be required to undergo an environmental induction and to comply with speed limits on the site. Construction operators will not be permitted to bring dogs or cats on to the site.
All construction, 'bump-in bump-out' and event related activities on the Parklands site will be directed by The Management Manual.

Table 4.2 below, from the Ecological Assessment, lists construction phase impacts and mitigation measures.

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Table 4.2 Construction phase impacts and mitigation

Action	Impact	Nature of Impact	Mitigation
Vegetation removal	Loss of forage resources and habitat	Direct	Supervise tree removal; retain biomass on site;, Compensatory plantings
Vegetation removal	Disrupt forage and movement patterns of local fauna	Indirect	Compensatory plantings
Underpass construction	Barrier effect for terrestrial fauna	Direct	Compensatory plantings
Road construction	Barrier effect for terrestrial fauna	Direct	Culverts beneath road for 'at grade' option
Underpass construction	Disturbance from human presence operation of machinery	Direct Temporary	Temporary duration

The Ecological Assessment **(see Technical Paper E)** also addresses the likely operational impacts of cultural event activities on ecological processes.

The report (section 6.2.2) identifies and recommends mitigating measures for the 'bump in' and 'bump out' phases i.e. the periods before and after an event when the event site is being prepared and dismantled. The likely impacts and mitigatory measures are summarised as follows.

Table 4.3 Bump-in and bump-out phase impacts and mitigation

Action	Impact	Nature of Impact	Mitigation
Prune overhanging branches	Minor vegetation loss	Direct	Supervision; retain biomass on site
Vehicle movements	Disturbance; potential road kill	Direct	Environmental induction & mgt systems; speed limits
Install fencing	Barrier to movement of larger terrestrial fauna	Direct	Search enclosed areas before late connection of fencing. Dismantle fencing as soon as possible
Installation of infrastructure	Disturbance	Direct	Environmental induction & mgt systems; speed limits
Dismantle infrastructure	Disturbance	Direct	Environmental induction & mgt systems; speed limits

Table 4.4 Operation event phase impacts and mitigation

Action	Impact	Nature of Impact	Mitigation
Patron arrival	noise and human presence, vehicle movements, parking	Direct & indirect	Environmental induction & mgt systems; speed limits
Patron occupation of event and camping areas	noise and human presence; vehicle movements alienates grassland resources for fauna	Direct	250 ha of grassland elsewhere on site remains available for fauna use
Lighting and noise	Disturbance; avoidance; habituation; sensitisation	Direct & indirect	Environmental induction & mgt systems; light management; Monitoring and reporting; management response to adjust lighting and noise where problematic
Musical performances, noise light	Disruption of fauna activity near stages	Direct	Reduction /modification of noise characteristics
Patrons handle fauna	Stress to fauna	Direct	Wildlife rescue personnel and green corps provide notification, rescue and advice
Fencing	Barrier effects	Direct & indirect	Monitor fences; dismantle as soon as possible
Patron departure	noise and human presence, vehicle movements, parking	Direct & indirect	Environmental induction & mgt systems; speed limits

DGR 9.2 Assess any potential direct or indirect impacts of the development on any wetland areas within or surrounding the site. Particular consideration should be given to SEPP 14 wetland No. 57.

While portions of grazed pasture are occasionally flooded, the only wetland of relevance to the proposal is the SEPP 14 wetland. SEPP 14 wetland No. 57 is entirely enclosed within Billinudgel Nature Reserve (BNR), and adjoins the southern portion of the Parklands property, designated as the southern car parking area.

Within the Nature Reserve in this area, the vegetation is swamp sclerophyll forest with extensive Camphor Laurel stands adjacent to the boundary fence, infested in areas with Lantana *Lantana camara*. Further within the reserve Broad-leaved Paperbark Melaleuca quinquenervia dominates, and the swamp forest is less weedy.

A permanent buffer is proposed to be established to the wetland. The buffer is 30m in size and will ensure that no detrimental run off or the like enters the wetland precinct.

A fire management plan including provision of a water tanker and personnel allocated to fire management during any events at the site will be relied on to ensure any risk of arson is appropriately managed.

Multi-purpose spill kits will be available for any major oil leakages from cars.

DGR 9.3 Assess any potential direct or indirect impacts of the development on any Endangered Ecological Communities within or surrounding the site.

Endangered ecological communities of the site are listed in Section 2.2.3 and depicted in Figure 2, page 12 of the Ecological Assessment **(Technical Paper E)**.

Coastal Cypress Pine forest is located well outside any predictable impacts from events

and event-related activities, is fenced and is being rehabilitated. Lowland Rainforest EEC is mainly located outside the application area in the west of the site.

A small and weed-infested area of regenerating lowland rainforest is present on slopes south of Jones Rd. where minor tree removal is required for the underpass (32 native trees; 27 camphor Laurel) or at grade crossing (44 native trees, 21 Camphor Laurel). Nineteen trees (9 native, 10 Camphor Laurel) are to be removed for road widening and construction of gate 'S'.

Trees proposed to be removed are shown in **Plan 4.7** while Table 18 of **Technical Paper E** provides a tree removal register providing details of such trees.

Swamp sclerophyll forest and sub-tropical coastal floodplain forest EECs dominate central forest blocks within the application area.

Direct impacts on EECs within the application area are largely avoided by separation of the event areas from the forest by barrier fencing during events. Small blocks of swamp forest EEC (#4, 5 & 52) are embedded within the camping and event areas. These are to be barrier fenced and no adverse effects are predicted to arise for this vegetation. The temporary removal of cattle from all event areas will provide a respite to normally unfenced EEC vegetation. In the longer term staged reduction in cattle numbers will occur as forest blocks are fenced and rehabilitated.

No EECs outside the site are considered likely to be affected by the events area. Swamp sclerophyll forest in Billinudgel Nature Reserve (BNR) will be protected by a vegetated 30m buffer from parking activities in the southern part of the Parklands site. A co-operative management arrangement between Parklands management and DECCW will address issues of potential human incursion into the BNR during event times.

Appendix I of **Technical Paper E** contains seven part tests for all endangered ecological communities of the site.

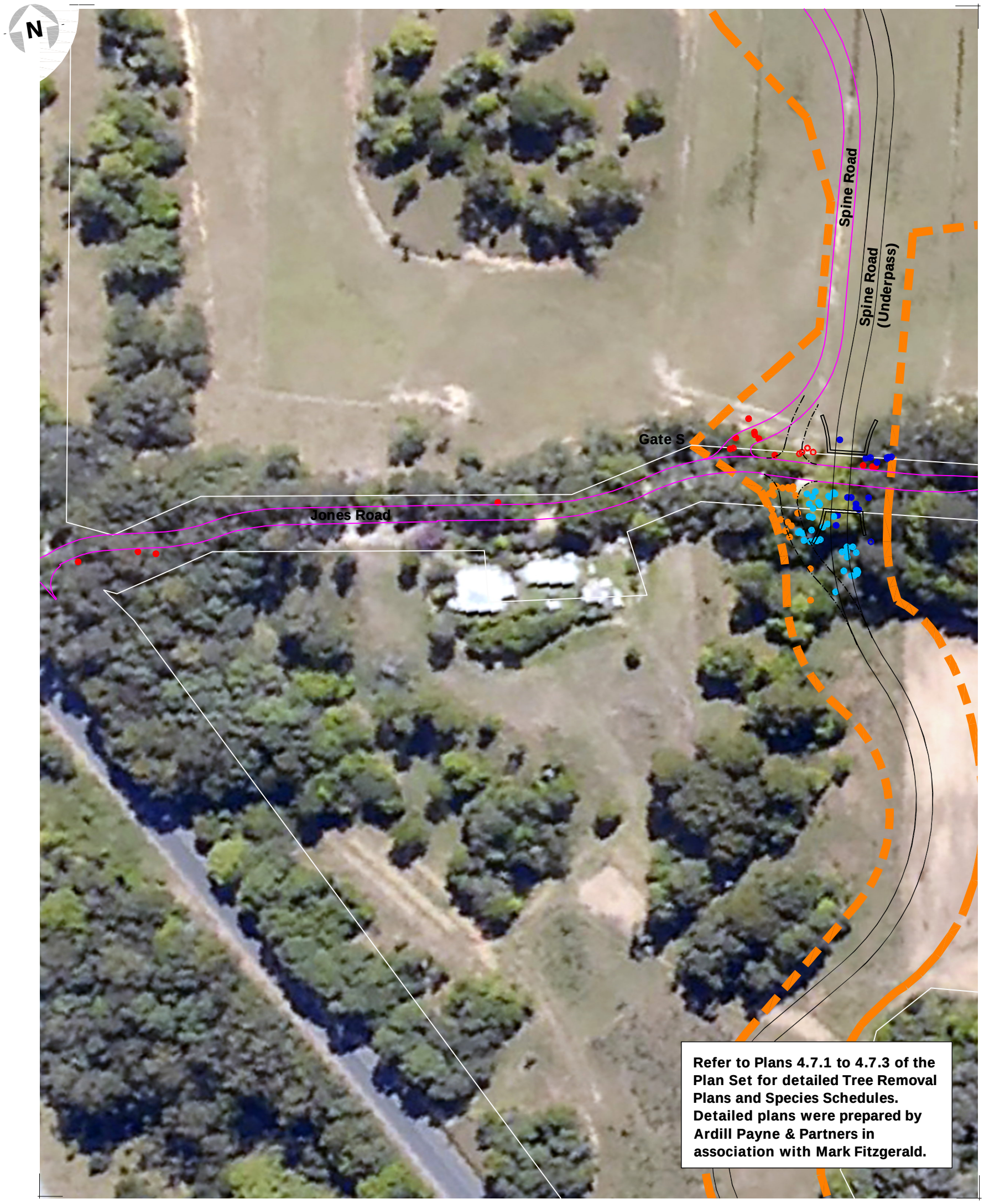
DGR 9.4 Describe any actions that will be taken in order to avoid or mitigate impacts the proposal may have on threatened species.

Predicted impacts of the proposal on threatened fauna species are described in Section 6.2.4. of the Ecological Assessment (see **Technical Paper E)**.These include disturbance of fauna from event activities: noise, human presence, lighting, vehicular and pedestrian traffic. Threatened fauna species present on the site during events will vary seasonally and according to the presence of key food resources.

Actions taken to avoid and mitigate impacts for these species include: limited activity on the site (8 large event days in year 1 and no more than 12 large event days annually in subsequent years of operation); plantings to screen southern margins of the large northern dam, tree plantings to restore habitat connectivity and increase overall tree cover at the site; traffic management to reduce the risk of road kill; management of lighting to avoid illumination of any forest habitats, and monitoring to identify levels of fauna presence, alterations in abundance during events, and to develop adaptive strategies to minimise impacts.

Consideration of impacts for threatened species precautionary includes species whose presence on the site during any event is considered of low likelihood. Monitoring is nominated as part of mitigation because improved recognition of the nature of impacts should lead to better management of disturbance regimes. Processes of habituation and sensitisation of fauna to particular elements of the disturbance regime are unpredictable, and will be informed by monitoring.

Impact mitigation measures for particular threatened species are listed in the following tables. **Table 4.4** refers to threatened fauna species recorded from the site from 2006-2010.



Legend:

The Site — Spine Road

Trees to be removed for Jones Road upgrade

Additional trees to be removed for 'underpass' option

Additional trees to be removed for 'at-grade access' option

Additional trees to be removed for either 'underpass' or 'at-grade access' option

PROPOSED TREE REMOVAL

Jones Road Upgrade and Gate S Construction
Number of native trees proposed for removal = 9
Number of Camphor laurel trees proposed for removal = 17

Additional Trees to be Removed for 'Underpass' Construction Option
Number of native trees proposed for removal = 32
Number of Camphor laurel trees proposed for removal = 17

Additional Trees to be Removed for 'At Grade Access' Option
Number of native trees proposed for removal = 43
Number of Camphor laurel trees proposed for removal = 21

No tree removal is proposed elsewhere on the site.

North Byron Parklands

0 160m

Date 10.08.10
Author SDR
Reference 09_120

IMPORTANT NOTE |
Cadastral information is subject to survey. The alignment of the aerial photograph and vectorial overlays is approximate only.

Prepared by
design team ink

Plan | 4.7
Tree Removal

Sources | Aerial Photography: Bill Mills (2009) **| Cadastre:** Ardill Payne (2009) **| Tree Removal Plan:** Ardill Payne (2010)

Table 4.5 Impacts & mitigation for threatened fauna species recorded on Parklands 2006-2010

Common Name	Likely Impact	Mitigation
BIRDS		
Comb-crested Jacana	If present may be disturbed by noise & human presence at the dam	Limited major event days; screen planting at the dam
Masked Owl	Prevent foraging in or near event areas	Limited major event days & nights
Grass Owl	Prevent foraging in grassland in the event and car park areas during events	Limited major event days & nights; ~50Ha of grassland remains outside event areas
Rose-crowned Fruit-dove	Prevent foraging in central swamp forest	Limited major event days & nights; plantings include known food plants for the species; increase in area of forest at the site
White-eared Monarch	Disturb foraging in forest adjacent to the event	Limited major event days & nights; plantings will increase area of forest at the site
MAMMALS		
Koala	Noise and human presence may affect movement patterns in forest adjacent to the event; elevate stress levels; risk of road kill	Avoid any activities near core koala habitat if this is present in the application area; Traffic plan to control vehicle movements; limited major event days; increase in tree cover at the site will improve connectivity for the Koala
Eastern Bent-wing Bat	Disturb foraging in forest adjacent to the event	Limited major event days & nights; avoid illumination of forest habitat; targeted monitoring
Little Bent-wing Bat	Disturb foraging in forest adjacent to the event	Limited major event days & nights; avoid illumination of forest habitat; targeted monitoring
Northern Long-eared Bat	Disturb foraging in forest adjacent to the event	Limited major event days & nights; avoid illumination of forest habitat; targeted monitoring
Blossom Bat	Disturb foraging in forest adjacent to the event if blossom crop is present	Limited major event days & nights; avoid illumination of forest habitat; targeted monitoring
Grey headed Flying-fox	Disturb foraging in forest adjacent to the event; if blossom or fruit crops are present	Limited major event days & nights; avoid illumination of forest habitat; targeted monitoring

Predicted impacts of the proposal on threatened flora species are described in Section 6.3.1 on **Technical Paper E**. A sapling Stinking Cryptocarya *Cryptocarya foetida* located in Forest block "A" will be protected by fencing, a Green-leaved Rose Walnut *Endiandra muelleri ssp. bracteata* present in a small stand of forest, far from any event activity, will be protected by barrier fencing before any construction takes place on the site. Threatened flora located outside the application area will be monitored and seed will be collected to establish an insurance population elsewhere on the property.

A sixth threatened flora species, not addressed or mapped above was located on the Parklands property on June 5th 2010. Three Rough-shelled Bush-nut trees *Macadamia tetraphylla* and a seedling were found in the extreme north western corner of the property, well outside any impact from the operation of Parklands as a cultural events site. An assessment of potential impacts for this species from a water management system proposed for the site is provided in Appendix K of **Technical Paper E**.

DGR 9.5 Given the presence of the core koala habitat across the site, a comprehensive Koala Plan of Management is to be prepared.

SEPP 44 requires a KPOM only to be prepared when core koala habitat is present on the site. The koala population circumstances within the locality of Parklands is dynamic as evidenced by the two koala surveys undertaken to date and reported within **Technical Paper E**. In the most recent survey, no core koala habitat was present on the overall Parklands site on within the Application Area. In these circumstances, a KPOM is not required.

Section 10 of the Ecological Assessment within **Technical Paper E** addresses the need for a Koala Plan of Management and states:

"A Koala habitat assessment in 2007 recorded a small area of core Koala habitat in the central east of the Parklands site outside the current Application Area. A Koala Plan of Management was accordingly prepared, based on staging SITG in 2008. A subsequent koala habitat assessment in 2008 recorded significantly lower levels of koala activity and the disappearance of core Koala habitat from the Parklands site."

Given the demonstrated dynamic nature of core Koala habitat at the Parklands site, it is proposed to defer the completion of any further KPoM until a contemporary assessment of Koala habitat is undertaken. The updated KPoM will also address the operation of Parklands as an ongoing events site.

DGR 9.6 Outline measures for the conservation of existing wildlife corridor values and/or connective importance of any vegetation on the subject land.

The Cleland Commission of Inquiry (1997, page 35) observed *"The evidence before the Inquiry does not establish scientifically that the Jones Road land is part of a wildlife corridor. Neither can the evidence be construed as indicating that the Jones Road land does not have wildlife values. It clearly does have wildlife corridor values*".

In the contemporary local landscape it is likely that all forested vegetation contributes to movement opportunities for non-flying fauna, because of the effects of historical clearing, of fragmentation of native vegetation, of the numbers of dogs present and the presence of a four lane divided freeway immediately to the west of the site with ~19kms of fauna exclusion fencing. Movement across this freeway by terrestrial fauna can only be safely accomplished through a series of dedicated fauna crossing structures, which are key features in establishing east to west connectivity in the locality. Tree plantings have already been established by Parklands to improve connectivity between the swamp forest habitats of Billinudgel Nature Reserve and habitats of the Parklands property with these culverts.

Within the Parklands site extensive grazed pasture also likely constrains movement of some terrestrial forest fauna. However, the presence of native terrestrial fauna (e.g. Brown Antechinus *Antechinus stuartii*) in isolated central swamp forest blocks suggests

that fauna are still able to move between forest patches, most likely at times when pasture grasses provide some cover, or along vegetated drains.

Under closely grazed conditions high risks of predation are likely when terrestrial fauna attempt to move between forest patches. Therefore opportunities for movement between forested habitats are important for habitat connectivity, as is restoration of ground-layer vegetation within forest patches.

The proponent has adopted the mapped wildlife corridors from the Byron Biodiversity Conservation Strategy (2004) as areas to be dedicated to restoration of tree cover. Future plantings and assisted regeneration in these areas will significantly increase opportunities for movement of terrestrial fauna. The Ecological Structure Plan **(Plan 1.2)** illustrates planned plantings of 11ha of new full habitat, and 48ha of managed parkland plantings. Staged exclusion of cattle by fencing of central swamp sclerophyll forest blocks will also assist with connectivity for terrestrial fauna by allowing the development of ground-layer and mid-layer vegetation and by providing additional shelter and food resources. Deployment of nest-boxes will assist habitat connectivity for gliders by providing shelter sites in areas with low natural hollow abundance.

The draft Vegetation Management and Biodiversity Plan (**Technical Paper E** Appendix M) will direct restoration of habitats and of tree cover in the site. Parklands management has adopted the mapped wildlife corridors from the Byron Biodiversity Conservation Strategy (2004) as areas to be dedicated to restoration of tree cover. Future plantings and assisted regeneration in these areas will significantly increase opportunities for movement of terrestrial fauna. The Ecological Structure Plan illustrates planned plantings of 11ha of new full habitat, and 48ha of managed parkland plantings.

Staged exclusion of cattle by fencing of central swamp sclerophyll forest blocks will also assist with connectivity for terrestrial fauna by allowing the development of ground-layer and mid-layer vegetation and by providing additional shelter and food resources.

Deployment of nest-boxes will assist habitat connectivity for gliders by providing shelter sites in areas with low natural hollow abundance.

DGR 9.7 Address measures to protect and manage the riparian corridor both within and adjacent to the site. Any proposed works within the riparian areas should be outlined in the EA.

Section 12 of the Ecological Assessment within **Technical Paper E** addresses measures to protect and manage the riparian corridor both within and adjacent to the site.

Floodplain areas on Parklands support networks of man-made drains, and several dams, but the principal riparian habitat on the site is Yelgun Creek in the southern cattle grazing and occasional car parking area. This watercourse has been adversely modified by previous owners and a restoration order to rectify damage was imposed on a previous owner.

A rehabilitation plan for the modified section of Yelgun Creek has been prepared and is attached as **Technical Paper E** Appendix J. Actions include fencing the riparian zone, establishing a secure crossing point, removal of weeds and establishment of native riparian vegetation and habitats.

Small sections of unnamed natural watercourses are present outside the event footprint in the west of the site. These areas are mainly embedded within forest which will ultimately be rehabilitated and fenced to exclude cattle. A new dam to provide potable water is proposed in an area of degraded riparian pasture habitat: see **Technical Paper E** Appendix K.

Drains of the site support fauna and contribute to dispersal of aquatic biota. This includes pest species (carp, mosquito fish), but also freshwater turtles (Eastern Long-necked Turtle Chelodina longicollis). Drains will at present be maintained to serve their intended purpose. Drain crossings will be protected from sediment intrusion during event activities by

implementation of standard sediment interception strategies, which will be monitored and audited.

Further to the above, the following reports within the application all contain a range of measures to protect and manage riparian areas and hence water quality:

- Integrated Water Cycle Assessment and Management within **Technical Paper F.**
- Construction Management Plan within **Technical Paper O.**
- Stormwater Management Plan within **Technical Paper P.**
- Acid Sulfate Management Plan within **Technical Paper M1.**

DGR 9.8 The proposed car parking area to the south of the site is in close proximity to the Billinudgel Swamp Nature Reserve. Indicate what measures will be undertaken to prevent weed infestation and toxic runoff into the reserve. An appropriate buffering distance should be identified between the Reserve and proposed southern car parking area.

This area of Parklands is currently grazed pasture by cattle. However, a proposed exclusion of cattle from the 30m buffer will result in the growth of pasture species (mainly South African Pigeon Grass Setaria sphacelata and Giant Paspalum Paspalum urvillei) and other ground-layer vegetation.

Potential impacts in BNR from use of the southern car park area include pollution from runoff, littering and the risk of fire from arson. However, direct impacts on the SEPP 14 Wetland are considered unlikely. Indirect effects will include disturbance to fauna from human activity on the site during event parking. This will likely include disturbance of grassland fauna such as Masked Plovers, Magpies, Australasian Pipits, and Maned Ducks, as well as potential disturbance to foraging Swamp Wallabies. However, most parking activity is remote from the interface between the Parklands boundary and the Nature Reserve.

Impacts on fauna are mainly limited to temporary disturbance by parking activities in closely grazed pasture. While this includes the risk of road kill of common terrestrial species, none of these impacts described are considered likely to affect the SEPP 14 wetland, either physically or by affecting biodiversity or ecosystem processes.

DGR 9.9 Outline measures to protect and manage proposed habitat areas and managed parklands.

A draft Vegetation Management and Biodiversity Plan (**Technical Paper E** Appendix M) directs the fencing, weed removal, planting and protection of designated pasture areas to restore forest vegetation and connectivity of habitats on the site. These 'full habitat' plantings to the north and south of Jones Road are designed to improve east-west connectivity.

'Full habitat' is a management zone which includes existing forest vegetation on the site and areas where native vegetation will be restored, as indicated in the ecological structure plan, and e.g. in Yelgun Creek restoration.

Plantings in 'full habitat' restoration areas will comprise locally sourced native species to develop plant communities similar to those existing on the site.

Plantings initially comprise a mixture dominated by suitable primary and pioneer species with fewer secondary and mature phase species. Plantings are fenced and treated with herbicides and slashed where practicable to assist establishment. Naturally occurring native seedlings are cultivated wherever practicable in a process of assisted regeneration.

'Managed parklands' describes areas where plantings to restore tree cover will take place, but where some event-related activities (e.g. camping, parking) can also take place. These will also mainly comprise native local plant

species of local provenance. In the longer term a nursery and local seed collection will be developed on the site.

'Managed parklands' will vary in tree density, species selection, internal spacing and maintenance regimes to ensure that multiple uses can take place. Typically plantings within event and camping areas will include widely spaced clusters to provide shade and aesthetic value. In the southern car parking area rows and clusters of trees will be planted to permit sufficient car parking and safe vehicle movements.

The draft Vegetation Management and Biodiversity Plan (VMBP) incorporates relevant elements of a preliminary vegetation management plan and an earlier Biodiversity Conservation Management Plan (Fitzgerald 2009) to direct development of full habitat and managed parklands plantings at the site. The draft VMBP addresses management of weeds and fencing associated with staged removal of cattle from forest blocks within the central event areas of the site. The draft VMBP will be updated to also include provisions of a third round of Koala surveys and an updated Koala Plan of Management in 2010-2011, as well as feedback from fauna monitoring in 2010-2011.

DGR 9.10 Provide details on any proposed offset measures to compensate for the loss of biodiversity and/or clearing of native vegetation. Offsets should be consistent with the DECCW's *Principle for the use of Biodiversity Offsets in NSW.*

Biodiversity offsets are usually applied where a loss of biodiversity is expected. The proposal will not result in a net loss of biodiversity.

The proposal entails a minor loss of weed-affected native vegetation to construct either an underpass, or at grade crossing of Jones Road, but includes diverse and significant compensatory measures including: dedication of lands to DECCW, a substantial on-site increase in native vegetation and tree cover, on-going weed removal, provision, maintenance and monitoring of nest boxes, on-going fauna monitoring and management and liaison with DECCW to manage potential impacts to BNR during events and event related activities.

Plantings of 7400 trees at the site since 2007 have already contributed resources (blossom, shelter, forage substrate) for fauna, and contributed to local ecosystem function.

Limits to the number of large event days (maximum 8 days in year 1 and 12 days subsequently) means that non-event days substantially dominate the annual cycle, providing time for 'normal' ecosystem processes, for post-disturbance recovery and for local rehabilitation of habitats to occur.

4.10 Socio Economic Impacts

DGR 10.1 Provide a social impact assessment for the development. Address the social and economic context of the development in terms of infrastructure requirements, public transport, community services and facilities (such as medical services).

Social impacts are addressed within **Technical Paper I** while the Community consultation informing the Social Impact Assessment is summarised in Section 5 of this report and provided in full in **Technical Paper J**. Economic Impacts are addressed within **Technical Paper B**.

The establishment of Parklands will generate significant economic benefits to the Byron Shire, Northern Rivers Region and New South Wales. This includes an increase in direct employment for the maintenance and management of Parklands as well as the organisation of the proposed events at the facility. This is anticipated to generate 20.5 EFT jobs for the maintenance and management of Parklands, with event organisation anticipated to generate 105.4 EFT jobs in the first year of operation, increasing to 210.1 EFT jobs in the fifth year of operation.

These economic benefits will be realised throughout a broad range of industries that will be supportive to Parklands facility, particularly the arts, cultural and recreational services industries. As previously mentioned, these industries are currently represented predominantly by non commercial business activities which while it has established a very strong culture within the region it does little to supplement the economy. The investment generated by the North Byron Parklands facility will provide a strong catalyst for economic growth and development within these industry sectors which has the potential to become a significant economic driver and contributor within the Byron Shire economy over the long term.

The total direct income that is anticipated to be generated for the North Byron Parklands is therefore anticipated to increase from $12.3 million in the first year of operation to $27.4 million in the fifth year of operation, an increase of 123%.

The Social Impact Assessment (SIA) involved identifying the various sectors of the community, identifying potential social changes, determining the extent and magnitude of any social changes, evaluating their significance to individuals and the community, and identifying ways of avoiding or lessening potential impacts.

The SIA, on balance, concluded the Parklands project has the potential to deliver social benefits locally and regionally. The primary potential adverse impacts are located within the locality of the site and relate to perceived environmental and amenity or lifestyle impacts during the limited and capped times per year of larger event usage.

4.11 Off-site Impacts – Neighbouring Land Uses

DGR 11.1 The concept plan area is located adjacent to the Billinudgel Nature Reserve. Address any direct and/or indirect impacts of the project where it adjoins this land.

Billinudgel Nature Reserve (BNR) adjoins Jones Road along the southern boundary of the concept plan area as well as adjoining the western boundary of the site in its southern section.

Consultation has occurred with NPWS personnel to identify potential impacts and develop a response strategy to any such impacts.

Potential impacts in BNR from use of the southern car park area include pollution from runoff, littering and the risk of fire from arson. However, direct impacts on the BNR are considered unlikely. Indirect effects will include disturbance to fauna from human activity on the site during event parking.

A fire management plan including provision of a water tanker and personnel allocated to fire management during any events at the site will be relied on to ensure any risk of arson is appropriately managed.

The strategy to temporarily close Jones Road to the public, other than Jones residents and their guests, during larger events, effectively prohibits access to BNR in this location.

The off-site response strategy also includes cooperative measures with NPWS officers to target other entrances to the Nature Reserve whereby monitoring will occur to advise people that the event site cannot be accessed via the nature reserve.

The recommended Parklands Regulatory Working Group would include NPWS officers.

DGR 11.2 Address any direct and/or indirect impacts the proposal may have on the surrounding and nearby residential and rural residences (e.g. traffic and access, noise levels, anti-social behaviour, amenity issues etc).

The Social Impact Assessment within **Technical Paper I**, identifies the various sectors of the community potentially impacted by use of the site as proposed. For each segment of the community, the potential impacts are identified and responses to avoid or mitigate such impacts is identified. The SIA addresses amenity issues and antisocial behaviour.

Traffic impacts are comprehensively addressed within **Technical Paper T** – with a detailed assessment on the existing road and public transport network. The assessment identifies current traffic conditions in the vicinity of the site, considers traffic impacts associated with the proposed development and projects future impacts on the road network. The site has a distinct advantage that the majority of traffic will originate from the Pacific highway and only traverse the local road system for some 1 km.

Noise issues and impacts are addressed within **Technical Paper D** which provides a range of mitigating measures.

Response strategies are embedded within the Management Manual which ensure ongoing monitoring and responsive management to any issues.

The recommended Parklands Community Liaison Committee provides an ongoing mechanism for community feedback.

4.12 Planning Agreements and/or Developer Contributions

DGR 12.1 Address and provide details on the likely scope of any planning agreement and/or developer contributions with council and/or any Government agencies.

By its very nature, development of the subject type is not contemplated in the Byron Shire contribution plan and no special planning agreement would appear necessary in the subject circumstances.

Separate to this application, following approaches by the Department of Environment, Climate Change and Water, upon purchase of the site, certain lands are to be provided as extensions to the Billinudgel Nature Reserve. The location and extent of these lands, with a total area of some 37 ha. are depicted within Illustration ES2 – Ecological structure Plan and include:

- Lot 101 DP 856767 – 15.91 ha.
- Pt Lot 404 DP 755687 – 4.11 ha.
- Pt Lot 2 DP 848618 – 6.63 ha.
- Pt Lot 10 DP 875112 – 8.61 ha.
- Pt Lot 46 DP 755687 – 2.19 ha.
- Pt Lot 101 DP 1001878 – 0.3 ha.

Together with these additions to the Nature Reserve, the following lands would transfer from DECCW to Parklands:

- Lot 12 DP 875112 – 2.1 ha.
- Pt Lot 31 DP 880376 – 1.9 ha.
- Pt Lot 14 DP 875112 – 4 ha.

4.13 Site Layout Access & Car Parking

DGR 14.1 Provide a description and details on the layout of the site, including the size, scale and location of all uses proposed under Stages 1 and 2.

Plan 1.1 – Land use Structure Plan depicts the Land uses within the application area while **Plan 1.2** – Ecological Structure Plan portrays the ecological components of the overall site.

Section 3 of this report and the accompanying **Plans and Technical Papers** describe in detail the layout of the site, including the size, scale and location of all uses proposed under Stages 1 and 2.

DGR 14.2 Provide details on access to the site from Tweed Valley Way, the internal road and pathway network and car parking provision taking into consideration the potential ecological and archaeological significance of Marshall's Ridge.

The accompanying **Plan Set** (pages 13 – 32), engineering design details, illustrates Traffic Impact Assessment, within **Technical Paper C**, details the access to the site, car parking provision and internal road and pedestrian network.

The access system has been designed following investigations into the potential ecological and archaeological significance of Marshall's Ridge. While the proposal provides both an 'underpass' and an 'at grade' option for crossing Marshalls Ridge, the 'underpass' option is preferred by the proponent.

The design of the access considerations with respect to Marshalls Ridge have been informed by the ecological assessments within **Technical Paper E**, and the cultural heritage assessment within **Technical Paper H.** The summary within this technical paper addresses this issue as follows:
The Aboriginal stakeholders hold Marshalls Ridge to represent a traditional pathway used to access ceremonial sites on the coastal plain at Wooyung. Due to their perceived connection with this traditional transit, artefact occurrences recorded on Marshalls Ridge, its fringing spurs, and elsewhere within the study locality, are assessed to be of high social/cultural significance. However, the stakeholders advised that, to their knowledge, the proposal would not affect any unmodified sites or places of ceremonial, mythological or otherwise sacred/spiritual significance, attachment or concern, and that (owing to its high level of disturbance and apparent absence of cultural materials) the proposed spine road cut and overfill tunnel across Marshalls Ridge would not compromise the values attributed to the wider ridgeline.

DGR 14.3 Provide details on any proposed connections between the site and Wooyung Road.

A road reserve with a farm access road of approximately 850 metres in length connects the northern property boundary with Wooyung Road. The proposal does not involve use of this access connection, other than for emergency vehicle use.

4.14 Infrastructure Provision – Water and Wastewater

DGR 15.1 Provide details of wastewater and water treatment facilities, including capacity, types of systems and management of odours.

A wastewater treatment process that has been demonstrated at a similar event site to accommodate the high level of wastewater flow variation associated with event usage has been identified and is the proposed treatment process for the site. The treatment process would produce the equivalent of Class A effluent quality and is demonstrated to perform with no odour impacts. The STP would have a design capacity of 700kL per day, and would have large balancing tanks and effluent storage dams to accommodate the wastewater flow from a 100% capacity event.

Effluent would be irrigated to 2.8Ha of woodlot timber and 3Ha of pasture. The timber would be grown as a commercial plantation and pasture would be grown for hay production, effectively exporting nutrients from the site. In conclusion, provided that the site is managed in accordance with the Water Management Plan in **Technical Paper F**, the proposed use

of the site will be sustainable and impacts to groundwater, surface water and the on-site and adjacent environmental reserves will be avoided.

DGR 15.2 Address and provide details on the likely scope of any planning agreement and/or developer contributions with council and/or any Government agencies.

By its very nature, development of the subject type is not contemplated in the Byron Shire contribution plan and no special planning agreement would appear necessary in the subject circumstances.

4.15 Socio-economic Impacts

DGR 16.1 Address any potential social or economic impacts of the proposal, including measures to reduce identified impacts.

The Economic Assessment within **Technical Paper B** has addressed the potential economic impacts of the Parklands project. The report has concluded that:

The Social Impact Assessment within **Technical Paper I** and the comprehensive community consultation reported within **Technical Paper J** have identified the various segments of the community potentially impacted both in positive and adverse ways.

The establishment of the North Byron Parklands will generate significant economic benefits to the Byron Shire, Northern Rivers Region and New South Wales. This includes an increase in direct employment for the maintenance and management of the North Byron Parklands as well as the organisation of the proposed events at the facility.

The project design and responsive management systems have been informed by these processes with the **Management Manual** detailing the monitoring and management procedures to be undertaken to continually consult, monitor and fine tune potential adverse social impacts.

4.16 Off-site Impacts Noise and Land Use

Section 4.12 of this report addresses the Concept Plan off- site impact DGR No. 11.

While larger events will only occur for a small proportion of each calendar year, off-site impacts for these limited periods are a major issue informing the design of the proposal and the response strategies incorporated into the proposal as addressed within Section 4.1 of this report.

To this end, the management system for the site provides a comprehensive response management system to avoid or mitigate temporary adverse off-site impacts of the proposal.

DGR 17.1 Provide details on mitigation measures to minimise noise levels, including traffic noise.

The Noise Impact Assessment within **Technical Paper D** examines the noise level criteria, predicts the level of noise at the nearest potentially affected sensitive receivers and details the noise monitoring that has been undertaken in the absence of these events.

Predictive modelling was undertaken based on various event scenarios. The potential noise impacts due to these proposed site layouts are predicted and analysed. Suitable noise

mitigation strategies are then evaluated in order to minimise any adverse noise impacts to the local community. These strategies examine all technically feasible and reasonable means available from experience in developing noise management plans for outdoor music venues.

During the preparation of the noise assessment report, consultation has taken place with the immediate residents.

In devising appropriate noise criteria research was undertaken of criteria adopted in Australia and in the UK.

The assessment within **Technical Paper D** recommends a number of management and mitigation measures should be implemented to reduce the potential for noise impacts. These include extensive consultation, venue specific mitigation measures, event noise management plan, monitoring prior and during the event and a complaints policy. These are discussed in more detail within the assessment.

DGR 17.2 Considers any potential impacts or land use conflicts the proposal may have on agricultural lands both within and adjoining the site

Agricultural uses on adjoining lands to the site are limited as adjoining lands to the south and east of the site contain the Billinudgel Nature Reserve while lands to the west of the site also include the Billinudgel Nature Reserve, Tweed Valley Way and the Pacific Highway. A multiple occupancy landuse adjoins the western boundary of the north of the site.

Adjoining land to the north of the site is utilised for cattle grazing with land further north utilised for sugar cane production. Consultation with landowners of these agricultural uses has occurred with management responses to be implemented during event usage of the site.

The Parklands site will remain a working farm with periodic use of the site for event usage. The site comprises the amalgamation of two farms which currently do not have connecting road access for farm usage and machinery. The introduction of infrastructure such as the spine road and the underpass will allow for improved functioning of the agricultural use.

DPI have advised that the agricultural land mapping previously undertaken of Byron Shire by NSW agriculture indicates the Parklands site comprises part Class 3, part Class 4 and part Class 5 agricultural land. Part of the western portion of the southern section of the site has been mapped as non-contiguous regional Significant Farmland. This portion of the site was understood to be filled prior to purchase by the current landowner. This portion of the site will be used for agricultural purposes for the majority of each year and only used for some 12 days per year for event associated uses once the site becomes fully operational.

Better quality agricultural land units within the site will continue to be utilised for agricultural use during the majority of the year.

Section

5

Consultation

This section of the report describes the consultation processes undertaken to inform the community of the proposal and consider community views. It also describes consultation undertaken to date with government agencies, Byron Shire Council and various community groups and individuals.

5.1 Consultation undertaken prior to this application

The Community Consultation listed in **Technical Paper J** of the EA report describes the community consultation undertaken to-date for the Parklands proposal. The report summarises the previously three years of consultation together with the further specific consultation undertaken for this current proposal.

Consultation processes commenced before the property was purchased in October 2006 to determine a range of stakeholders' views in response to the proposed development. In particular, prior to purchase of the site, the group met with immediate neighbours along Jones Road, Conservation of North Ocean Shores Environmental Group members, Byron Shire Council and individual councillors.

After the purchase of the property the group embarked on a wide ranging on-going consultation process as summarised below.

Summary of previous consultation to end 2009:

- Consultation occurred with Byron Shire Council senior staff and Councillors prior to purchase of the site as an events site.
- Meeting with adjoining and nearby neighbours (including meetings prior to the purchase of the site).
- Meetings with relevant government agencies such as National Parks and Wildlife Service.
- Discussions with the National Parks and Wildlife Advisory Committee including attendance at their meeting in August 2007.
- Contacting over twenty-five regional environmental and community groups to discuss the proposed plans for North Byron Parklands including inviting members to attend a guided site tour.
- Attending the meetings of local community groups including Ocean Shores Community Association, Conservation of North Ocean Shores (CONOS), Brunswick Valley Sports Association, Brunswick Heads Chamber of Commerce, Brunswick Heads Chamber Executive & Business Tourism Group and Brunswick Heads Progress Association to discuss specific questions, concerns and opportunities.
- Attending a meeting of 25 local residents at the Ocean Shores Country Club (26 September 2007).
- The provision of site tours (over 200 stakeholders including interested residents, environment and community group representatives have toured the site).
- Facilitating an on site Environmental Forum on 22nd September 2007. Twenty-five (25) environmental groups and a range of other key stakeholders were invited.
- Attending a public meeting hosted at Byron Council Chambers as an information exchange forum. North

Byron Parklands outlined its proposal to develop a cultural arts and music events site. Over 120 community members attended this forum.

- Provision of a North Byron Parklands website to provide information to the community including an email enquiries link to allow the community to contact directly with their queries and concerns. Over the period April 2007 to April 2010 the website has received over 11,500 unique "hits".
- Providing advertisements and notices in the local newspapers inviting interested parties to various information sessions and workshops.
- Undertaking on site Community Open Days and tree planting days, including those in June and November 2007.
- Providing information to print, TV and radio media. Responding to interview requests from: NBN News, ABC North Coast, Bay FM, The Byron Shire Echo, The Byron Shire News, The Tweed Sun, The Tweed Daily News and The Northern Star.
- Researching the indigenous significance of the property and engaging in discussions with local aboriginal people with regards to the ongoing protection of sacred sites and the possibility of a cultural centre. This process has included discussions with the local CDEP Indigenous re-generation team about collaborating on regeneration and bush tucker planting projects.
- Commissioning of a telephone survey of residents to gauge community attitudes to cultural and arts events in Byron Shire in accordance with Council's recently adopted Social Impact policy, consultation has occurred regarding this Social Impact Assessment.
- From 2006 Parklands has met on numerous occasions with various councillors, Council staff such as planners, ecologists, engineers and environmental health officers. In addition, a number of site visits have been attended by councillors and Council officers.

5.2 Community Consultation undertaken for this application

A new consultation process was undertaken for the preparation of the Environmental Assessment Report for the Parklands proposal and is described within this section.

The Community Consultation report within **Technical Paper J** adopted the following objectives for the consultation process:

- Update stakeholders regarding the proposal for Parklands;
- Consult with individuals and groups that had not been previously personally contacted;
- Broaden the geographic scope of consultation;
- Ensure that detailed information regarding the proposal was made available to individuals and groups;
- Encourage personal and small group (up to five people) tours of the site with key Parklands personnel;
- Recontact those who had been previously contacted but who may not have given feedback or may have had unanswered questions; and
- In relation to all the above points, secure feedback from individuals and groups consulted.

The report addresses the methodology used and details the consultation methods employed which comprised:

- Personal contact by telephone and email;
- Letterbox drop;
- Extensive mail out of personal letters;
- Private and public site tours;
- Advertisements in local media;
- North Byron Parklands website;
- Media liaison; and
- Letters to the Editor in local media.

The report adopted the following community sectors and consulted these by the listed methods in the following table:

Table 5.1 Community Consultation Sectors

Stakeholder	Consultation methodology
Immediate neighbours (Jones Road, Wooyung Road and Tweed Valley Way)	• Personal telephone and email contact with all immediate neighbours. • Advising, scheduling and undertaking of personal site tours. • Provision of written information regarding the Parklands proposal via email and/or posted letter. • Seeking of concerns and other feedback via phone and email. • Letterbox drop. • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.
Residents in surrounding areas	• Personal telephone and email contact and personal letter or email detailing the Parklands proposal and offering site tours with some local residents. • Scheduling and undertaking of personal site tours upon request. • Letterbox drop to homes and businesses plus flyers left in local shops. • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.
Businesses	• Each of the known Chambers of Commerce in the region (x 10) received a personal letter via post or email outlining the Parklands proposal. Most were followed up with a phone call or email again offering site tours and seeking feedback. • All businesses in Ocean Shores, New Brighton, South Golden Beach, Billinudgel, Wooyung, Crabbes Creek, Mooball, Sleepy Hollow and Burringbar received the letterbox drop flyer. •Numerous individual businesses were contacted via phone, email and posted letter regarding the Parklands proposal. Many attended site tours. • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.
Residents associations, ratepayers associations and progress associations	• A personal letter outlining the Parklands proposal, seeking feedback and offering site tours was sent to resident, ratepayer and progress associations in the region (total 11 groups). In addition, telephone and email liaison was undertaken with many of these groups. • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.

Community groups and community associations	• A personal letter outlining the Parklands proposal, seeking feedback and offering site tours was sent to Tidy Towns Ocean Shores, Brunswick Community Centre, the Women's Resource Centre, Ocean Shores Community Association and Pottsville Community Association. In addition, telephone and email liaison was undertaken with these groups. • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.
Action groups	• A personal letter outlining the Parklands proposal was sent to Coalition for Festival Sanity and Wooyung Action Group. • Generic consultation including media releases, letters to the editor, public site tours, the letterbox drop and the North Byron Parklands website.
Environmental organisations and individual stakeholders	• A personal letter outlining the Parklands proposal, seeking feedback and offering site tours was sent to BEACON, the Byron Environment Centre, Conservation of North Ocean Shores (CONOS) and the Caldera Environment Centre. • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.
Tourism representatives	• A personal letter outlining the Parklands proposal, seeking feedback and offering site tours was sent to Northern Rivers Tourism, Tweed Tourism, Byron Bay Tourism, the Byron Visitor Centre and the Brunswick Heads Visitor Centre. • Most of these groups have undertaken site tours. • Information regarding the Parklands proposal has also been disseminated to numerous tourism service providers in the Byron and Tweed Shires. • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.
Young people and those who represent them	• Telephone and email consultation including sending outline of the proposal to Byron Shire Council Youth Development Officer. • Information regarding the proposal has been emailed to other youth organizations in the region including Byron Youth Service, MindRight Institute (Nicqui Yazdi), Mullum Youth Crew, the Youth Drug and Alcohol worker for The Buttery, Michelle Grant from Brunswick CDAT and Ballina Byron Youth and Family Support.

	• A personal letter outlining the Parklands proposal, seeking feedback and offering site tours was sent to all known P & C associations in the Yelgun region (x 12). • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.
Byron Shire Councillors	• North Byron Parklands' invited Byron Shire Councillors on personal site tours on two occasions in 2010. • North Byron Parklands' invited Byron Shire Councillors and staff to a debriefing of the Parklands Environmental Assessment.
Regional peak bodies	• Northern Rivers Tourism, Tweed Tourism, Regional Development Australia Northern Rivers, Southern Cross University, Arts Northern Rivers, Northern Rivers Business Enterprise Centre and NORPA were sent letters regarding the North Byron Parklands proposal, which also sought feedback and offered site tours. Representatives from both tourism bodies and Arts Northern Rivers (8th July) have attended site tours. • Generic consultation including media releases, letters to the editor, public site tours and the North Byron Parklands website.

5.3 Analysis of Outcomes

The Community Consultation report in **Technical Paper J** reports on the feedback from the various community sectors consulted in the process.

The community response was largely supportive of the proposal with greatest concern from some residents living closer to the proposal. These concerns were based on amenity or 'way of life' issues, together with concerns regarding impacts on ecological matters.

A wide variety of business and industry organizations, as well as residents, supported the proposal in view of its economic and employment opportunities together with positive cultural and social aspects.

The findings of the Community Consultation report informed the Social Impact Assessment within Technical Paper I which again identified the various sectors of the community and the likely impacts on those community sectors. A range of mitigatory, compensatory and contingency measures were recommended to largely address potential adverse impacts.

Specific measures to address amenity and 'way of life' issues are contained within the Parklands Environmental Management Standard addressing managing off-site impacts is NBP Standard 007 – Off-site Management.

Social impacts, including those associated with people's amenity or 'way of life', are subject to individual perceptions and naturally vary widely. The community consultation feedback reflected such divergent views with some nearby residents opposing the proposal and others being supportive.

The various community sectors consulted in the process included the following:

- Immediate neighbours
- Residents in surrounding areas
- Businesses
- Residents Associations, Ratepayers Associations and Progress Associations
- Community groups and associations
- Action groups
- Environment groups
- Tourism representatives
- Young people and their representatives
- Government representatives
- Regional peak bodies

5.4 Government Agency Consultation

Consultation with the following government agencies has occurred for the overall project and for the 'trial event' DA determined by Byron Shire Council (10.2007.462.1).

The, then, NSW Department of State and Regional Development (DSRD) facilitated a round table meeting of key agencies (DSRD, DEC, DOP and BSC) in 2006. The meeting recognised the conceptual merit of the proposal in seeking to establish a cultural facility of regional significance, whilst simultaneously achieving significant environmental outcomes.

For the purposes of the subject application the following Government Authorities have been consulted:

- Industry and Investment NSW;
- Department of Planning;
- Department of Environment, Climate Change and Water;
- NSW Roads and Traffic Authority;
- NSW Department of Lands;
- NSW State Emergency Service;
- NSW Health;
- Ambulance Service of NSW
- NSW Police; and
- Tweed Shire Council.

A wide range of consultation has occurred with applicable government agencies in the formulation of the EA for the Parklands project. The various specialist Technical Papers authors consulted with relevant government agencies in the research for their assessments.

Section

6

Justification and Conclusion

This section of the report describes the need and justification for the proposal and provides the conclusion to the Environmental Assessment Report.

6.1 Justification

6.1.1 Introduction

This EA has comprehensively examined all of the potential issues associated with the proposed North Byron Parklands. In a number of cases, initial assessment showed potential for significant impacts to occur without management and mitigation. As a consequence, a detailed management plan and a suite of mitigation measures have been developed and incorporated into the proposal. A draft Statement of Commitments also forms part of this application and demonstrates the proponent's commitment to managing the impact of the proposed development.

In considering whether the project is justified, the DGRs require justification having regard to:

1 The suitability of the site for the project;

2 The environmental impacts of the project;

3 Whether the project is in the public interest.

The project also needs to comply with the objectives of the *Environmental Planning and Assessment Act 1979* before it could be justified.

6.1.2 Suitability of the site

The development proposed in this application is permissible with development consent under the Byron LEP 1988. As a consequence, from a strategic planning point of view, development of the type proposed is considered suitable, in some form, on the land.

As detailed in the body of the EA, the objectives of the *Environmental Planning & Assessment Act 1979*, the Byron LEP 1988 and the relevant land use zones are all satisfied by the proposed development in the form proposed.

In addition, the Far North Coast Regional Strategy also supports development of this type. The strategy identifies the opportunity to widen the tourism sector and to promote products derived from the region's natural cultural resources and attractions. The proposal for a permanent cultural event site is a creative and innovative example of such an opportunity and consistent with the objectives of the strategy.

In those circumstances, there is a strategic planning justification for the project in the relevant zones.

Given the consistency of the proposal with relevant strategic planning documents it is then necessary to consider why this particular site should be developed for this purpose.

The proponents of the North Byron Parklands have significant experience in event management having been involved with events such as 'Splendour in the Grass'. The principal locational criteria for a cultural event sites capable of accommodating events of the size anticipated in this project (and which include camping a proportion of the patrons on site) include:

- A large area of cleared relatively flat land;
- A low number of nearby residences;

- Close proximity to a highway or main road interchange of suitable capacity;
- Proximity to centres with visitor accommodation for patrons not camping on the site;
- Proximity to an airport and other transport; and
- Topography that assists with acoustic mitigation.

The proponents have undertaken an extensive search for sites within the NSW Northern Rivers Region. The subject site was one of a few properties within the region that meets all of the above listed criteria. In particular, the site has a large area of cleared relatively flat land, relatively few nearby residences, and access to transport infrastructure. It also has limited undesirable characteristics such as contamination, acid sulphate soils, bushfire hazard, geotechnical problems and flooding. Having conducted detailed studies into the impacts of the proposed development, the site characteristics allow the impact of the proposed development manageable by the use of the detailed Management Manual that has been included with this application.

In that context, the site is uniquely suitable for the establishment of a cultural events facility of the scale anticipated.

6.1.3 Environmental impacts

The operation of a cultural events facility of the kind proposed in this application brings with it the potential for significant environmental impacts. These impacts include, but are not limited to, traffic impacts, impacts on aboriginal archeology, impacts on flora and fauna, visual impacts and other offsite impacts. Each of these potential environmental impacts has been the subject of rigorous environmental study which has enabled the applicant to understand the impacts and to formulate appropriate management and mitigation measures.

A cornerstone of managing the environmental impacts is the Environmental Health and Safety Management Manual submitted with and forming part of this application. The management manual is based on international best practice and implements appropriate management strategies to ensure that there are no unacceptable environmental impacts as a consequence of carrying out of the project. In particular, the manual implements:

1 A management plan for flora and fauna to minimize the disturbance to significant flora and fauna;

2 A management strategy for ensuring Aboriginal archeology is not disturbed;

3 A traffic management strategy that ensures that impacts associated with traffic movements are managed; and

4 An acoustic management strategy to ensure that the acoustic impacts associated with the cultural events will not unacceptably impact on adjoining landowners.

5 An off-site management strategy to ensure that the off-site impacts associated with the cultural events will not unacceptably impact on the amenity of local residents.

The management manual is a world class management system which, if implemented, will satisfactorily manage all of the environmental impacts that this EA has identified.

The proponent has committed, as part of its draft Statement of Commitments, to implement the management manual and it should form part of any project approval granted.

On the basis of the management manual, the environmental impacts are minimal.

6.1.4 Public interest

Consideration of the public interest involves:

1 Defining the public whose interest is being invoked; and

2 Defining the benefit towards which a proposal claims to make a contribution.

'The public' is an amorphous term which requires definition in every case. In the context of this application, the public is considered to be the residents of the Far North Coast Region.

The current population of the region is more than 228,000 and the Far North Coast Regional Strategy plans for an overall population of 289,000 people by 2031. Cultural tourism and creative industries are a key component of the cultural, social and economic fabric of the Byron Shire and the Far North Coast Region more generally.

Cultural events in the NSW Northern Rivers Region contribute significantly to the region's economy, workforce, cultural tourism experiences and quality of life.

The traditional site for larger festivals within Byron Bay is no longer available as it is currently subject to rezoning processes in accordance with the Far North Coast Regional Strategy 2006-2031. The need for a purpose built cultural multi event site has been widely recognized. The NSW Government identified such a demand and in their *Regional Business Growth Plan – North Rivers Region July 2008* (and the associated *Northern Rivers Creative Industries Consortium of the Arts and Creative Industries Strategy 2009*), documented the need to provide infrastructure for creative industries and identified the requirement for a purpose built events site to secure the future of music festivals in the region. Festivals such as 'Splendour in the Grass' have lost the capacity to use the Belongil Field site and have moved to Woodford in Queensland. The economic, social, cultural and tourist advantages of large scale events to the Far North Coast will continue to be lost to Queensland if a facility such as the North Byron Parklands is not established.

The establishment of the North Byron Parklands not only enhances the social and cultural environment but will generate significant economic benefits for the Byron Shire, the Northern Rivers Region and NSW more generally. This includes creation of 105 equivalent full time jobs in the first year of operation, increasing to over 210 equivalent full time jobs in the fifth year of operation. The total direct income that is anticipated to be generated will increase from $12.3 million in the first year to $27.4 million in the fifth year. The total multiplier effect of the enterprise operating at capacity is $192 million annually within the region.

In environmental terms, the concept adopts and exceeds the habitat corridor goals set out in the Council's Biodiversity Strategy. It also retains and enhances all existing important habitat and fosters a continuing ecological land use ethic. This will continue to supports the ecosystem functions in the adjacent Reserve.

The proposal is consistent with all relevant government strategies and will result in positive economic, environmental, and social outcomes for the region as a whole. The proposed management manual system provides for comprehensive management of the impact and will ensure events are monitored, mitigated and managed in an effective manner. It also provides a transparent audit system and represents a proven and reliable method for managing the site.

Given the significant benefits and the potential for the adverse effects to be mitigated and managed through the implementation of the management plan, the public interest in the proposal to the Far North Coast far outweighs any competing private interest and is for that reason in the public interest.

6.1.5 Objectives of the EP&A Act

- **Proper management development and conservation of natural and artificial resources ellipsis for the purpose of promoting the social and economic welfare of the community and of their environment**

The proposed development manages the important environmental characteristics of the site while allowing the site to be used for its highest and best use. It also makes a significant contribution to the cultural and economic value of the Northern Rivers region. The provision of this cultural event site will promote the social and economic welfare of the community by providing the community with access to events and the arts whilst simultaneously providing employment and local economic stimulus and tourism opportunities. Although the development is not without impact, an appropriate management system has been proposed as part of this application to ensure that the natural resources of this site are managed appropriately for the purpose of promoting the social and economic welfare of the community and creating a better environment.

- **The promotion and co-ordination of the orderly and economic use and development of land**

As set out above, the site is uniquely suitable for the proposed use fulfilling the strategic planning objectives of both the local Council and the State Government. It also has unique site characteristics which makes the proposed use the highest and best use of the subject land. In this instance, it both promotes and represents orderly and economic development of the land.

- **The protection provision and co-ordination of communication and utility services**

The proposal provides for the co-ordinated provision of utility services together with communication services which are readily available to service the proposed development.

- **The provision of land for public purposes**

Although the development is privately owned and will be conducted for profit, it does provide a facility that will be utilised by the public. In that sense, the land will be used for a superior public purpose to its existing use for the purpose of agriculture.

- **The provision and co-ordination of community services and facilities**

The proposal provides a facility for community purposes and facilitates cultural events. The demand for community services and facilities is not placed under excessive demand by the proposal and any demand created by the proposal is more than offset by the economic activity that will be generated by the proposed development.

- **The protection of the environment, including the protection and conservation of nature animals and plants including threatened species populations and ecological communities and their habitats**

The proposal has been the subject of a detailed ecological investigation by an eminent local ecological expert - Dr Mark Fitzgerald. The proposed development responds to the ecological constraints of the site and will be managed in accordance with the management plan provided by Dr Fitzgerald as part of his assessment. The proposal will only involve periodic use of that part of the site of little environmental value and will otherwise enhance the ecological values of the site. In this sense, the proposal is consistent with this objective of the *Environmental Planning and Assessment Act 1979.*

6.1.6 Ecologically sustainable development

The principles which underlie the concept of ecologically sustainable development include:

(i) the precautionary principle;

(ii) intergenerational equity;

(iii) biodiversity conservation; and

(iv) improved valuation pricing and incentive mechanisms.

- **Precautionary principle**

The precautionary principle essentially requires that if there are threats of serious or irreversible damage, lack of full scientific certainly should not be used as a reason for postponing measures to prevent environmental degradation. In practice, the precautionary principle means avoiding serious or irreversible environmental damage by properly assessing potential impacts and taking the necessary mitigation measures. The proposed development is consistent with this principle in that the assessments that have been conducted are based, in essence, on a worst case scenario. Where a potential threat to the environment has been identified, appropriate mitigation and management measures have been developed in response. This is principally done through the design of the facility and the management plan which will regulate the ongoing use of the site. In this way the proposed development is consistent with the precautionary principle.

- **Social equity including intergenerational equity**

This principle requires that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The environmental management plan will operate to ensure that there is no effect on the environment on or around the project site which would diminish the health, diversity or productivity of the

environment for future generations. On the contrary, the proposal is likely to assist with fostering the cultural interest and diversity of future generations.

- **Conservation of biological diversity and ecological integrity**

This principle requires the conservation of biodiversity and ecological integrity as a fundamental consideration of any proposal. In this case, the environmental constraints of the site have been considered in detail and it has been shown that, if left unmanaged, there may be impacts. This has resulted in the preparation of a comprehensive management regime in consultation with suitably qualified experts to ensure that the biological diversity and ecological value of the site is maintained in the long term.

- **Improved valuation pricing and incentive mechanism**

This principle requires that environmental factors should be included in the valuation of assets and services and that users should pay for goods and services based on the full lifecycle costs. It also requires the establishment of environmental goals and the pursuit of them in a cost-effective way. The management plan that is proposed as part of the present development sets environmental goals and requires the management of pollution and waste generated on the site to be dealt with appropriately and, where possible, recycled. These management initiatives will be the responsibility of the event operator, with the consequence that the management of all pollution and waste will be incorporated into the pricing of events staged at the facility. In those circumstances, the proposal is consistent with this principle of ecologically sustainable development.

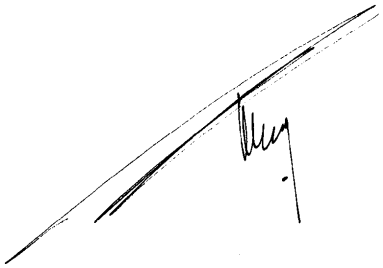
6.2 Conclusion

The Concept Plan and Project Application for the North Byron Parklands represents a regionally significant development for the NSW Northern Rivers region.

This Environmental Assessment demonstrates that the proposal is consistent with all applicable government strategies and will result in positive economic, environmental and social outcomes for the region as a whole.

The proposed Management Manual provides for the comprehensive management of impacts. The system will ensure events are monitored, mitigated and managed in an effective manner. Further, it provides a transparent audit system.

The proposal to create a purpose built cultural events facility at this site is in the public interest and has sufficient merit to be granted conditional Part 3A approval.



SJ Connelly FPIA CPP

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Copyright and Usage Note

Appendix

A

Director-General's Requirements Review

Appendix A Director Generals Requirements Review
This concurrent Concept Plan and Project Application Environmental Assessment report comprises the following plans and documents:

- Environmental Assessment report;
- Environmental Health and Safety Management Manual;
- The bundle of **Technical Papers**; and
- **Plan Set.**

The DGR's list various plans, diagrams etc that are to be submitted with the EA. These plans and the like are listed in **Table A1 – DGR's Plans and Documents** below along with a notation regarding where they are to be found in the EA.

Table A1 Concept Plan DGR's Plans and Documentation.

Plan/Diagram	Location
Existing Site Survey Plan	Plan 2.3
Aerial Photograph	Plan 1.1
Site Analysis Plan	Plan 3.27
Locality/Context Plan	Plans 2.1 & 2.2
Zoning Plan	Plan 4.1
Concept Plan	Plan 1.2
Stormwater Concept Plan	Technical Paper Q
Landscape Concept Plan	Plans 3.22, 3.24 & 3.26
View Analysis	Technical Paper A

Table A2 Project Application DGR's Plans and Documentation.

Plan/Diagram	Location
Site layout plans	Plans 3.1 to 3.26
Architectural Drawings	Plans 3.21, 3.23 & 3.25
Storm Water Plan	Technical Paper Q
Erosion and Sediment Control Plan	Technical Paper P
Landscape Plan	Plans 1.3, 3.22, 3.24 & 3.26
Construction Management Plan	Technical Paper O

Table A3 Project Application Plans.

Plan/Diagram	Location
Site layout plans	Plans 3.1 to 3.26
Architectural Drawings	Plans 3.21 & 3.23
Stormwater Plan	Technical Paper Q
Erosion and Sediment Control Plan	Technical Paper P
Landscape Plan	Plans 1.3, 3.22, 3.24
Construction Management Plan	Technical Paper O

Table A4 Content Compliance Table.

DG Requirements	Report Location
Part A Concept Plan Application	
An executive summary	At front of EA
2. A detailed description of the proposal including:	
- Any development options	Plans 3.1 to 3.20
- Justification for the project	Section 6.1 – Page 135
- Outline of the staged implementation	Section 3.4 – Page 57
3. A thorough site analysis	Section 3.5 – Page 57
4. Statutory and non-statutory provisions	Section 3.6 – Page 60
5. Objects of the EPA Act 1979	Section 3.6.2 – Page 64
6. Commonwealth Environment Protection and Biodiversity Conservation Act 1999	Technical Paper E – Section 5.1
7. An assessment of the potential impacts of the project and a draft Statement of the Commitments,	Section 3.7 – Page 65 Section 3.8 – Page 70
8. The plans and documents outlined in Attachment 2	Refer Tables A1, A2 & A3 above
9. Author of the environmental assessment certifying that the information contained in the report is neither false nor misleading	Page vi
10. An assessment of the key issues and a table outlining where these key issues have been addressed	Section 4 – Page 85 Refer to this Table
Part B. Project Application	
The EA must be address the following key issues:	
1. Strategic Planning	Section 4.1 – Page 85
1.1 Justify the proposed land uses across the site	

having regard for the Byron Local Environment Plan 1988. Provide justification for any inconsistencies.	Page 63 and Technical Paper T
1.2 Justify the proposal with reference to relevant local, regional, and State planning strategies. Provide justification for any inconsistencies with these planning strategies.	Page 62 and Technical Paper T
1.3 Outline the proposed staging of the development	Page 57
1.4 Outline the proposed location and approximate size and scale of the facilities proposed for future stages (including the cultural centre, conference centre, camping infrastructure, water treatment plant and wastewater treatment facility)	Section 3.2.1.1 Page 25 – 46
1.5 Outline in detail the scale and frequency of events (e.g. the total number of major, moderate and minor events per year)	Page 25
2. Urban design and sustainability	Section 4.2 Page 93
2.1 Demonstrate suitability of the proposal with the surrounding area in relation to bulk, scale, amenity (including noise) and visual amenity having regard to the Coastal Design Guidelines of NSW (2003) and the NSW Costal Policy 1997	Section 4.3 – 4.9 Page 94
3. Visual Impact	Section 4.3 Page 94
3.1 Address the visual impact of the proposal in the context of surrounding development and relevant mitigation measures. Use visual aids such as a scale model or photomontage to demonstrate visual impacts.	Section 4.3 –Page 94 and Technical Paper A
4. Infrastructure Provision	Section 4.14 – Page126
4.1 Address existing capacity and requirements of the development for sewerage, water, electricity, waste disposal, telecommunications and gas in consultation with the relevant agencies. Identify and describe staging, if any, of infrastructure works.	Section 4.14 – Page 126
4.2 Water supply details	Page 126
4.3 Capacity of infrastructure	Page 126
5. Traffic and Access	Section 4.5 page 99
5.1 Traffic impact study	Page 99 and Technical Paper C
5.2 Yelgun Interchange capacity	Technical Paper C and Page 100
5.3 Provide details on the connection between the proposed spine access road and Tweed Coast Road	Technical paper C and Page 100
5.4 Car parking to be provided	Page 103
5.5 Crown Road within and south of Lot 403	Page 103
Hazard management and Mitigation	Section 4.6 – Page 113
6.1 SEPP 55 – Remediation of Land.	Page 103
6.2 Acid sulfate soils & mitigation	Page 104
6.3 Planning for Bush Fire Protection 2006	Page 105
6.4 Geotechnical conditions	Page 106
6.5 Flood risks on site	Page 107

6.6 Assess the potential impacts of an increase in the rainfall intensity on the flood regime of the site and adjacent lands with consideration of Practical Consideration of Climate Change – Flood Plain Risk Management Guideline (DEC, October 2007)	Page 107
6.7 Potential odour impacts	Page 108
7. Water cycle Management	Section 4.7
7.1 Address and outline measures for Integrated Water Cycle Management (including storm water) based on Water sensitive Urban Design principles which address impacts on the surrounding environment, drainage and water quality controls for the catchment, and erosion and sedimentation controls at construction and operational stages.	Page 108
7.2 Assess the impacts of the proposal on surface and groundwater hydrology and quality during both construction and occupation of the site. Provide details on any monitoring and/or mitigation plans to ensure surface water and groundwater are not detrimentally impacted upon.	Page 108
7.3 Consider the nature and profile of the groundwater regime under the site, including any hydrological impacts which would affect its depth or water quality, result in increased groundwater discharge, impact on the stability of potential acid sulfate soils in the vicinity, or affect groundwater dependant native vegetation	Page 109
7.4 Consider the requirements of DECCW's NSW farm Dams Policy	Page 110
8. Heritage and Archaeology	Section 4.8
8.1 Identify whether the site has any significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance. The assessment must address the information and consultation requirements of the draft Guidelines for Aboriginal Cultural heritage Assessment and Community Consultation (DEC 2005) and Interim Community Consultation Requirements for Applicants (DEC 2004)	Page 110
8.2 Identify the nature and extent of impacts, if any, on Aboriginal cultural heritage values across the site	Page 111
8.3 Describe any actions that will be taken in order to avoid or mitigate impacts the proposal may have on Aboriginal cultural heritage values.	Page 112
8.4 Identify any items of non-indigenous heritage significance and, where relevant, provide measures for the conservation of such items.	Page 112
9. Flora and Fauna	Section 4.9 and Technical Paper E
9.1 Assess potential direct and indirect impacts of the development on flora and fauna taking into	Page 113

consideration impacts on any threatened species, populations, ecological communities and/or critical habitats and any relevant recovery plan in accordance with DECCW's Guidelines for development and Activities.	
9.2 Assess any potential direct or indirect impacts of the development on any wetland areas within or surrounding the site.	Page 115
9.3 Assess any potential direct or indirect impacts of the development on any Endangered Ecological Communities within or surrounding the site.	Page 115
9.4 Describe any actions that will be taken in order to avoid or mitigate impacts the proposal may have on threatened species.	Page 116
9.5 Given the presence of the core koala habitat across the site, a comprehensive Koala Plan of Management is to be prepared.	Page 120
9.6 Outline measures for the conservation of existing wildlife corridor values and/or connective importance of any vegetation on the subject land.	Page 120
9.7 Address measures to protect and manage the riparian corridor both within and adjacent to the site. Any proposed works within the riparian areas should be outlined in the EA.	Page 121
9.8 The proposed car parking area to the south of the site is in close proximity to the Billinudgel Swamp Nature Reserve. Indicate what measures will be undertaken to prevent weed infestation and toxic runoff into the reserve. An appropriate buffering distance should be identified between the Reserve and proposed southern car parking area.	Page 122
9.9 Outline measures to protect and manage proposed habitat areas and managed parklands.	Page 122
9.10 Provide details on any proposed offset measures to compensate for the loss of biodiversity and/or clearing of native vegetation. Offsets should be consistent with the DECCW's Principle for the use of Biodiversity Offsets in NSW.	Page 123
10. Socio-economic Impacts	Section 4.10
10.1 Social impact assessment for the development. Address the social and economic context of the development in terms of infrastructure requirements, public transport, community services and facilities (such as medical services).	Page 123
11. Off-site Impacts	Section 4.11
11.1 The concept plan area is located adjacent to the Billinudgel Nature Reserve. Address any direct and/or indirect impacts of the project where it adjoins this land.	Page 124
11.2 Address any direct and/or indirect impacts the proposal may have on the surrounding and nearby residential and rural residences (e.g: traffic and access, noise levels, anti-social behaviour, amenity	Page 125

issues act).	
12. Planning agreements and/or Developer Contributions	Section 4.12
12.1 Address and provide details on the likely scope of any planning agreement and/or developer contributions with council and/or any Government agencies.	Page 164
Key issues for the Project Application	
13. Compliance with the requirements for the concept plan	Refer above in table
13.1 The EA must demonstrate consistency with all DGRs detailed in part A.	Refer above in table
14. The site layout, access and car parking	Section 4.13
14.1 Provide a description and details on the layout of the site, including the size, scale and location of all uses proposed under Stages 1 and 2.	Page 126
14.2 Provide details on access to the site from Tweed Valley Way, the internal road and pathway network and car parking provision taking into consideration the potential ecological and archaeological significance of Marshall's Ridge	Page 126
14.3 Provide details on any proposed connections between the site and Wooyung Road,	Page 126
15.Infrastructure Provisions	Section 4.14
15.1 Provide details of wastewater and water treatment facilities, including capacity, types of systems and management odours.	Page 126
15.2 Address and provide the likely scope of any planning agreements and/or development contributions with Council/Government agencies (including relevant community/state infrastructure contributions).	Page 127
16. Socio-economic Impacts	Section 4.15
16.1 Address any potential social or economic impacts of the proposal, including measures to reduce identified impacts.	Page 127
16. Off-site Impacts	Section 4.16
17.1 Provide details on mitigation measures to minimize noise levels, including traffic noise.	Page 167
17.2 Consider any potential impacts or land use conflicts the proposal may have on agricultural lands both within and adjoining the site.	Page 128